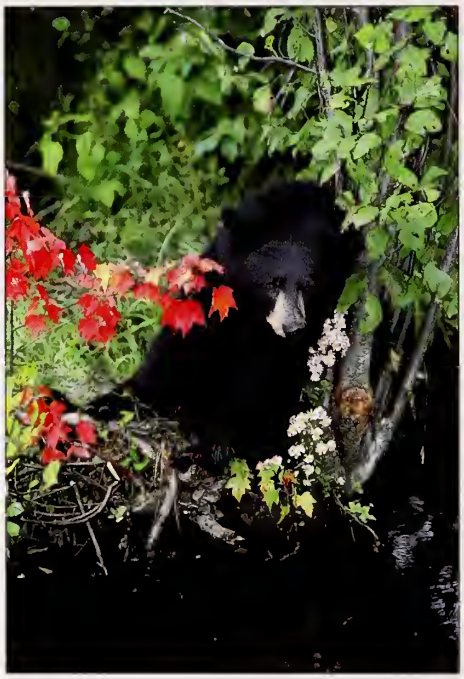
VIRGINIA WILDLIFE

SEPTEMBER 1994 ONE DOLLAR

Tired of 20th century gadgetry? Want to step back in time? Caution: Look before you leap into longbows! See page 24 for details. Illustration by Gerald Mann.

VIRGINIA WILDLIFE



Cover: *Hunting season opens this month, and our Virginia Hunter's Guide will provide you with all you need to know about where to go, season lengths, hunting forecasts, and license requirements. Black bear; photo by Bill Lea.*

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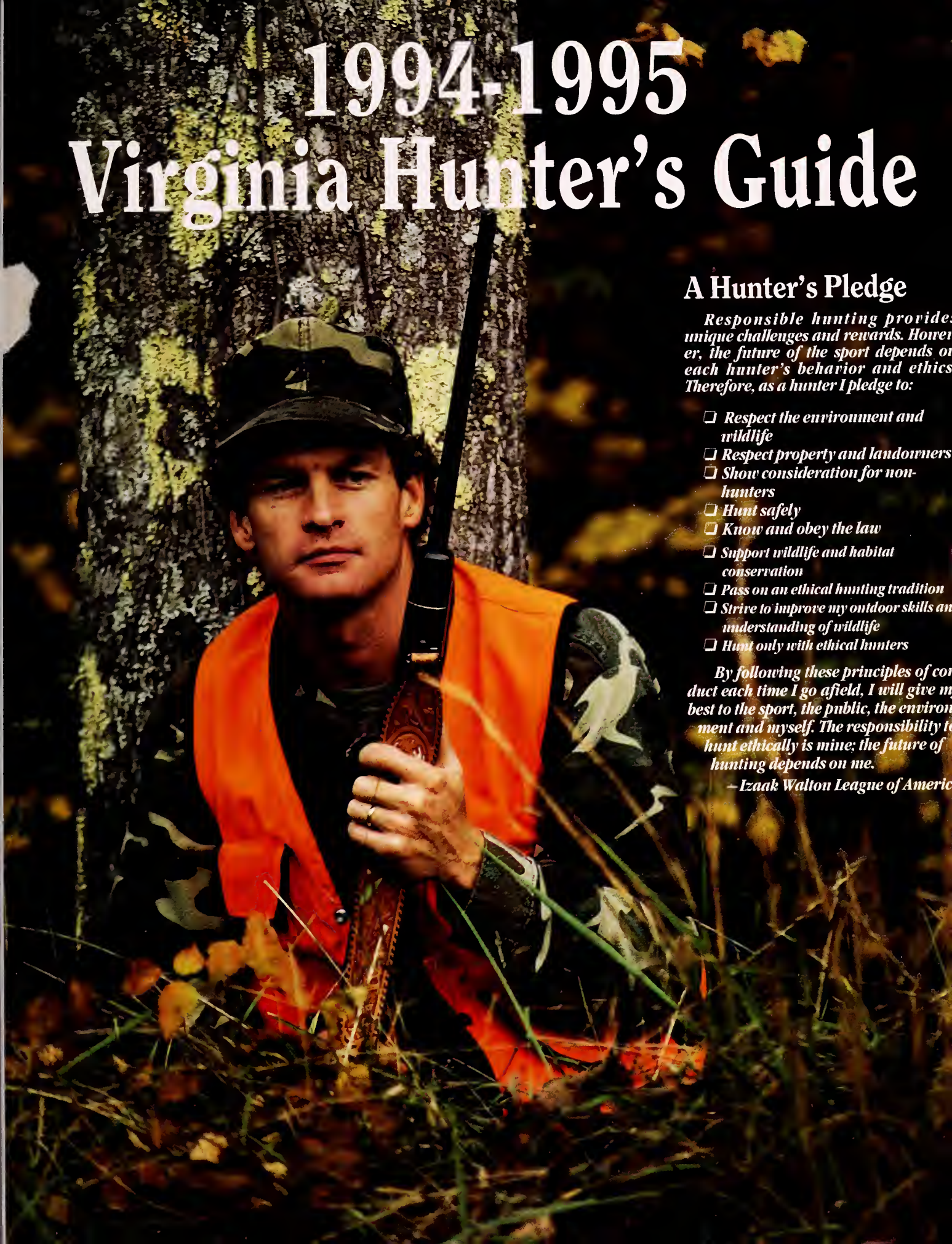
Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

VOLUME 55 NUMBER 9

1994-1995 Virginia Hunter's Guide



A Hunter's Pledge

Responsible hunting provides unique challenges and rewards. However, the future of the sport depends on each hunter's behavior and ethics. Therefore, as a hunter I pledge to:

- ❑ *Respect the environment and wildlife*
- ❑ *Respect property and landowners*
- ❑ *Show consideration for non-hunters*
- ❑ *Hunt safely*
- ❑ *Know and obey the law*
- ❑ *Support wildlife and habitat conservation*
- ❑ *Pass on an ethical hunting tradition*
- ❑ *Strive to improve my outdoor skills and understanding of wildlife*
- ❑ *Hunt only with ethical hunters*

By following these principles of conduct each time I go afield, I will give my best to the sport, the public, the environment and myself. The responsibility to hunt ethically is mine; the future of hunting depends on me.

—Izaak Walton League of America

Dwight Dyke

Virginia is full of hunting opportunities. No matter where you live, you can be in prime hunting country within the hour. However, to keep the sport safe and the wildlife resource healthy, you must follow the rules. Below, we have outlined some of the basics that every hunter must follow, but *it is essential to obtain a copy of the brochure entitled* ***"Hunting in Virginia: 1994-95 Regulations"*** produced by the Virginia Department of Game and Inland Fisheries, which is available wherever hunting licenses are sold.

The following guide should help you in choosing quality hunting opportunities, in addition to hunting legally and ethically. Be sure to make contacts early, obtain the permission and permits necessary, and be considerate of the property of others.

Licenses Required

Every hunter must have a valid license. Exceptions to this are: 1) landowners and tenants who live on the land they rent and who have their landlord's written permission, and 2) Virginia residents 65 years of age or older who hunt on private property in the county of their residence.

The licenses you need depend upon what, where and even how you hunt. A *basic resident or non-resident license* is required of all hunters and is valid for hunting all upland game. If you want to hunt *deer, bear and turkey*, an *additional license* is required. A *National Forest Permit* is needed to hunt on National Forest land and a similar stamp is required to hunt the *Piedmont State Forests.*

A special *archery license* is required to hunt during special seasons open for bowhunting only.

A special *muzzleloading gun license* is required to hunt during the special muzzleloading season.

Bonus deer tags can be purchased which allow hunters to take bonus deer beyond statewide and special season bag limits in certain areas.

Some western counties require a *game damage stamp* to hunt deer or bear within their respective boundaries. These are issued by the clerks of the court in counties where they are required.

A federal *migratory waterfowl stamp* is required for hunting ducks or geese and is available at local post offices. A voluntary state waterfowl stamp is also available for $5, the

proceeds from which are used for habitat acquisition and restoration, and waterfowl research.

A *blind license* must be displayed on both stationary and floating blinds in, or on the shores of public waters east of Interstate 95 except on the Eastern Shore counties. Consult the hunting regulations for particular information.

A special *early goose season* has been approved again this year in an attempt to harvest the expanding population of resident geese in Virginia. The season will run from September 6 through September 15 and is restricted to specific hunt zones which include portions of northern and central Virginia. This area has been expanded from 22 to 46 counties. The bag limit is 5 geese per day, with 10 in possession. *Hunters are required to obtain a free validation card* and keep the daily hunting log accompanying it. These logs must be turned in at the end of the season in order to provide the Department with harvest and hunter participation data as required by the U.S. Fish and Wildlife Service. Call the Richmond VDGIF office at 804/367-1000 for further details.

The general license year is from July 1-June 30. Licenses may be obtained from some of the clerks of the courts and from authorized Department agents conveniently located throughout the state at most sporting goods and country stores. Further information about licenses may be obtained from the Virginia Department of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104. Phone (804) 367-1000.

Fees

A $.50 issuance fee will be added to each license.

Resident

Lifetime license to hunt (bear, deer, turkey license and all special stamps are required in addition to this license) $250.00

County or city resident to hunt in county or city of resident 5.00

State resident to hunt. 12.00

State resident license to hunt deer, bear and turkey statewide required in addition to county or state hunting license, senior citizen or lifetime license 12.00

State resident junior to hunt statewide (15 years and under) 7.50

State resident junior license to hunt deer, bear and turkey statewide (15 years and under) required in addition to state hunting license. 7.50

Totally and permanently disabled resident special lifetime license to hunt (bear, deer, turkey license and all special stamps are required in addition to this license) 5.00

Totally and permanently disabled Veteran resident lifetime license to hunt and fish 5.00

Senior citizen resident (age 65) license to hunt (bear, deer, turkey license and all special stamps are required in addition to this license) 1.00

Senior citizen resident (age 65) license to trap (bear, deer, turkey license and all special stamps are required in addition to this license) 1.00

State resident muzzleloading license to hunt statewide 12.00

State resident archery license to hunt statewide 12.00

County or city resident to trap in county or city of residence . . . 10.00

State resident to trap statewide. 35.00

Special stamp to hunt deer and bear in Floyd, Highland, Rockbridge, and Russell counties, in addition to other licenses, and sold only by the clerks of those counties 1.00

Resident bonus deer permit (2 tags) valid only on private lands in counties and cities where deer hunting is permitted. 12.00

Nonresident

Nonresident lifetime license to hunt 500.00

Nonresident to hunt 60.00

Nonresident 3-day trip license to hunt statewide 30.00

Nonresident muzzleloading license to hunt statewide 25.00

Nonresident archery license to hunt statewide 25.00

Nonresident bear, deer, turkey license to hunt statewide, required in addition to hunting license . . . 60.00

Nonresident special stamp in Russell County. 1.00

Nonresident special stamp in Floyd, Highland, and Rockbridge, counties 5.00

Nonresident to hunt on shooting preserves only obtainable in counties in which preserves are located 12.00

Nonresident permit for trapping on private land with permission 130.00

Nonresident bonus deer permit (2 tags) valid only on private lands in counties and cities where deer hunting is permitted. 25.00

Miscellaneous

National Forest permit to hunt, fish or trap on national forests, required in addition to hunting license (holders of senior citizen (age 65) license excepted) 3.00

Permit to hunt or trap on Appomattox-Buckingham, Cumberland-Prince Edward and Pocahontas State Forests (sold by the Dept. of Forestry and local license agents) may be obtained from Forest Headquarters 10.00

Federal migratory bird stamp to take migratory waterfowl, required of persons 16 years of age and over in addition to hunting license and sold at U.S. Post Offices 15.00

Virginia migratory waterfowl stamp (voluntary) 5.00

Special Regulations

Below are recently adopted hunting regulations which affect first-time hunters, firearms season hunters, waterfowl hunters, and handicapped hunters.

Hunter Education

All first-time hunters and anyone from the ages of 12 to 15 years old must demonstrate they have successfully completed an approved hunter education course before they can buy a hunting license. Persons 16 years old or over will be exempted if they have held a hunting license in prior years. Virginia recognizes all other states' and countries' hunter education programs. For convenience, current licensed hunters should save their old license until they buy their new ones. For information on hunter safety courses in your area, contact the hunter education training sergeants listed below or the Richmond VDGIF Office at 804/367-1000.

Region 1
Sgt. John Ober, Williamsburg Office
(804) 253-7072

Region 2
Sgt. Mike Ashworth, Forest Office
(804) 525-7522

Region 3
Sgt. Harry Street, III, Marion Office
(703)783-4860

Region 4
Sgt. Frank Mundy, Verona Office
(703) 248-9360

Region 5
Sgt. Terry Bradbery, Richmond Office (804) 367-1147.

1994-95 Virginia Hunting Seasons Summary

(For more detailed information, ask your local license agent for a copy of *Hunting in Virginia, 1994-1995 Regulations.*)

BEAR	October 8-November 12	Archery
	November 28-January 7	General Season
BOBCAT	November 1-January 31	Statewide (6 per year)
CROW	August 20-March 18	Statewide-Monday, Thursday, Friday and Saturday only
DEER	October 1-November 30	Va. Beach, Chesapeake, Suffolk (east of Dismal Swamp)
	October 1-November 19	Archery
	November 7-19	Early Muzzleloader
	November 21-January 7	Isle of Wight, Suffolk (west of Dismal Swamp)
	November 21-December 3	West of Blue Ridge (general firearms)
	November 21-January 7	East of Blue Ridge (general firearms)
	December 5-January 7	Archery—West of Blue Ridge
	December 1-January 7	Archery—Virginia Beach, Chesapeake, Suffolk (east of Dismal Swamp)
	December 19-January 7	Late muzzleloader—designated western counties
FOX	Year-round	Dogs only—statewide, with exceptions
	November 1-January 31	Statewide, with exceptions
GROUSE	October 31-February 11	West of I-95 (closed east of I-95)
PHEASANT	November 14-January 31	Statewide, with exceptions
QUAIL	November 14-January 31	Statewide
RABBIT	November 7-January 31	Statewide (season closed to snowshoe hare)
RACCOON	August 1-May 31	Chase only-(private lands only)
	October 15-March 10	East of Blue Ridge
	October 15-January 31	West of Blue Ridge
SQUIRREL	September 3-January 31	Statewide—designated southern counties
	October 8-January 31	Statewide—designated northern counties
FOX SQUIRREL	Same as squirrel but only in counties west of the Blue Ridge and Fairfax, Fauquier (except C.F. Phelps WMA), Loudoun and Rappahannock	
TURKEY	October 1-November 12	Archery
	November 7-19	Designated eastern counties
	November 7-19	Designated central counties
	November 28-January 7	Designated central counties
	November 7-January 7	Designated southwest counties
	April 15-May 20, 1995	Spring Gobbler Season

DEER BAG LIMITS

Statewide	2 per day, 3 per license year (one of which must be antlerless)
Archery	2 per day, 3 per season (one of which must be antlerless)
Muzzleloader	2 per day, 3 per season (one of which must be antlerless)
Bonus Tags	2 tags for $12.00 (resident) or $25.00 (nonresident), valid only on private lands in counties or cities where deer hunting is allowed. Valid during special archery, special muzzleloading and general firearms seasons.

Blaze Orange Required

Every hunter or person accompanying a hunter during a firearms deer season shall wear a blaze orange hat or blaze orange upper body clothing that is visible from 360 degrees, or display at least 100 square inches of solid blaze orange material at shoulder level within body reach and visible from 360 degrees. Blaze orange is not required (but is highly recommended) during the special muzzleloading season and spring gobbler season. Fall turkey hunters will be required to wear blaze orange during that part of the fall turkey season falling within the firearms deer season. Those *not* required to wear blaze orange are: waterfowl hunters who hunt from stationary or floating blinds, over decoys, in marshes and swamps, or from a boat or other floating conveyance; individuals participating in hunting dog field trials; and fox hunters on horseback without firearms.

Steel Shot Zones

Steel shot is required statewide for waterfowl hunting.

New Crossbow Regulation

A new regulation was passed to allow persons with a permanent physical disability to hunt with a crossbow under certain restrictions. All participants will be required to submit a completed verification form obtainable from the Department. The form must be completed by a medical doctor declaring he or she meets one or more criteria which prevents them from using conventional archery equipment. Persons who qualify may only use a crossbow on their own property during the special archery seasons. The verification form must be submitted to the Department prior to hunting with a crossbow and a copy must be kept with the hunter at all times. To obtain the form, write to: VDGIF, Permits and Licensing Section, P.O. Box 11104, Richmond, VA 23230-1104.

Gray squirrel; photo by Bill Lea

Dwight Dyke

Where to Hunt

Finding good places to hunt in Virginia requires planning. Simply traveling the highways and byways until you see unposted land is not the right way to hunt at all!

No privately owned land, posted or not, is open to hunting without first obtaining permission. Written permission is required on posted land and verbal permission in all other cases. Posted land, in addition to signs, may be recognized by silver or aluminum painted stripes on trees.

Some selected state and federal lands as well as lands managed by private timber companies are available for public hunting with appropriate permits. Below is a description of the public hunting lands available in Virginia.

Game Department Public Hunting Lands

The Virginia Department of Game and Inland Fisheries (VDGIF) owns more than 180,000 acres of land purchased with hunter license dollars and open to public hunting with a minimum of restrictions. With the exception of the daily blind permits on waterfowl areas at Back Bay and Hog Island, there is no charge for hunting on these areas. Lands owned by VDGIF are marked with yellow boundary paint. Hunting seasons and bag limits on these areas usually conform to those for the surrounding county. Most are open for the early archery season. *Dove hunting is permitted during the regular open season on Wednesdays and Saturdays and Opening Day only.* Hunter access roads on VDGIF lands which are normally open to motor vehicles will be open as indicated (weather permitting):

Statewide: 1st Saturday in October to the 2nd Saturday in February, and 1st Saturday in April to the 3rd Saturday in May.

Foot travel is invited on roads closed to motor vehicles.

Primitive camping (no developed facilities) is permitted, except as otherwise posted, on VDGIF lands, but not to exceed a maximum of 7 days and in groups not to exceed 3 camping units. Camping is prohibited on or within 100 yards of any Department owned or controlled boat ramp or fishing lake.

Amelia Wildlife Management Area—2,217 acres in Amelia County. Deer, turkeys, squirrels rabbits, quail, doves, and waterfowl. Handicapped accessible fishing pier on 100-acre lake available as well as toilet facilities. A boat ramp and ample parking are also available. Use of gasoline motors on the lake is prohibited. Contact: Robert L. Turney,

Wildlife Biologist Assistant, 67 Morningside Road, Cartersville, VA 23027.

Back Bay Hunting Areas—*Princess Anne*:1,546 acres. Waterfowl hunting on first-come, first-served basis. Float blinds must be tied to blind stakes. Stakes available for float blind hunting. Float blinds must have a Virginia Beach float blind license acquired by Oct. 1. Information on blinds is available from VDGIF, Wildlife Division, 5806 Mooretown Road, Williamsburg, VA 23188.

Briery Creek Wildlife Management Area—2,968 acres in Prince Edward County. Deer, turkeys, quail, doves, rabbits, squirrels and waterfowl. Waterfowl and dove hunting permitted during regular open season on Wednesdays and Saturdays and season opening date only. Contact: Danny W. Johnson, Wildlife Biologist Assistant, HC-06, Box 46, Farmville,VA 23901.

C. F. Phelps Wildlife Management Area—4,540 acres in Fauquier and Culpeper Counties. Deer, turkeys, squirrels, rabbits, quail, waterfowl, and doves. Good access to Rappahannock River. Contact: Robert D. Henson, Wildlife Biologist Assistant, 5669 Sumerduck Road, Remington,VA 22734.

Chickahominy Wildlife Management Area—Approximately 6,000 acres in Charles City County. Deer, turkeys, squirrels, rabbits, quail, doves and waterfowl. Floating waterfowl blinds or hunting from shore with a distance of 500 yards between hunters. Contact: VDGIF, Wildlife Division, 5806 Mooretown Road, Williamsburg, VA 23188.

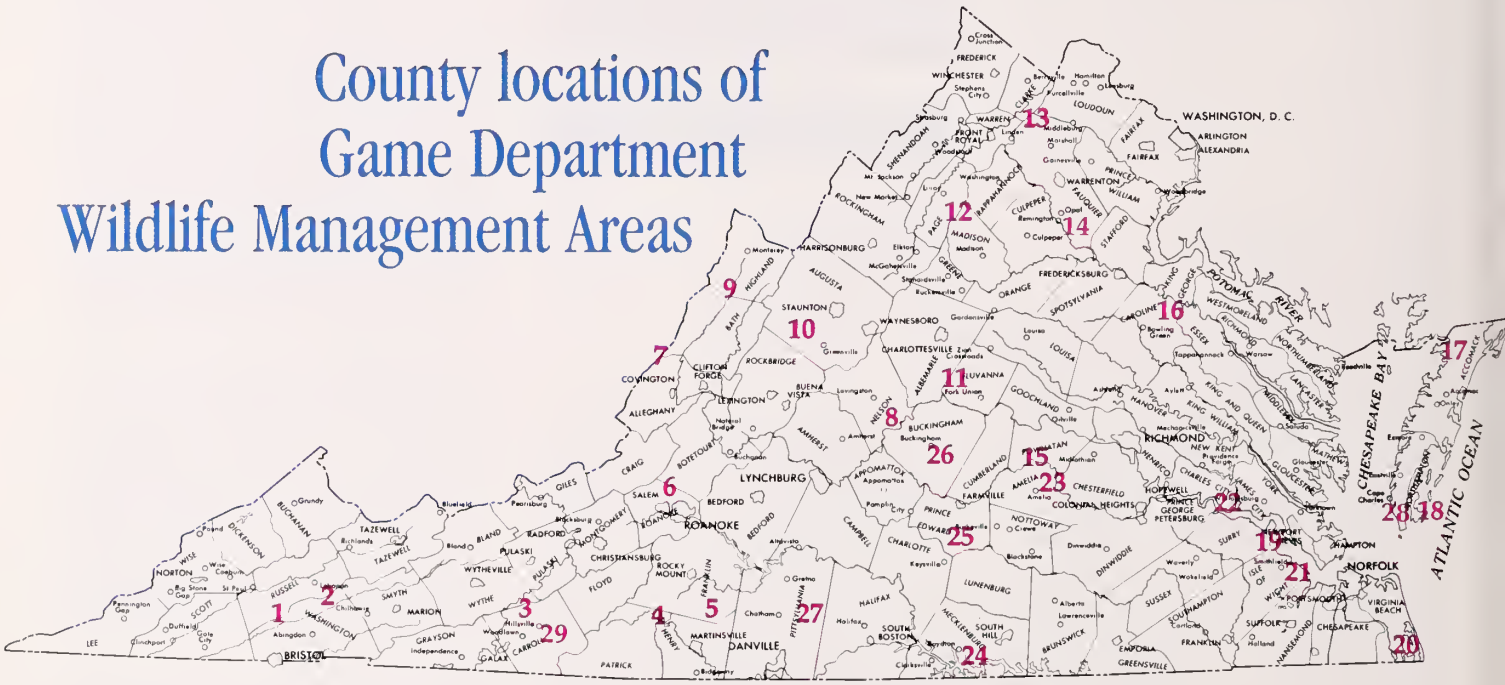
Clinch Mountain Wildlife Management Area—25,477 acres in Smyth, Russell, Tazewell and Washington Counties. Bear, deer, turkeys, squirrels, rabbits, grouse and waterfowl. Contact: Scott Whitcomb, Wildlife Biologist Assistant Supervisor, Route 2, Box 569, Saltville, VA 24370.

Crooked Creek Wildlife Management Area—2,878 acres in Carroll County. Deer, turkeys, rabbits, squirrels and grouse. Contact: D. H. Martin, WMA Supervisor, Rt. 2, Box 171, Woodlawn, VA 24381.

Dick Cross Wildlife Management Area—1,371 acres in Mecklenburg County. Dove hunting, small and big game. No waterfowl hunting allowed. Contact: Danny W. Johnson, Wildlife Biologist Assistant, HC-06, Box 46, Farmville, VA 23901.

Fairy Stone Farms Wildlife Management Area—5,343 acres in Patrick and Henry Counties. Camping nearby at Fairystone State Park

County locations of Game Department Wildlife Management Areas



1 *Hidden Valley (6,400a)*
2 *Clinch Mt. (25 ,477a)*
3 *Crooked Creek (2,878a)*
4 *Fairy Stone (5,343a)*
5 *Turkeycock Mt. (2,679a)*
6 *Haveus (7,182a)*
7 *Gathright (13,428a)*
8 *James River (1,213a)*
9 *Highland (14,284a)*
10 *Goshen-Little North Mt. (33,666a)*
11 *Hardware River (1,034a)*
12 *Rapidan (10,215a)*
13 *G. Richard Thompson (4,160a)*
14 *C. F. Phelps (4,540a)*
15 *Powhatan (4,463a)*
16 *Pettigrew (934a)*
17 *Saxis (6,382a)*
18 *Mockhorn I. (9,452a)*
19 *Hog Island (3,908a)*
20 *Princess Anne (1,546a)*
21 *Ragged Island (1,537a)*
22 *Chickahominy (6,000a)*
23 *Amelia (2,217a)*
24 *Dick Cross (1,371a)*
25 *Briery Creek (2,968a)*
26 *Horsepen (2,910a)*
27 *White Oak Mt. (2,712a)*
28 *Gatr Tract (342a)*
29 *Stewart's Creek (1,100a)*

and Philpott Reservoir. Deer, turkeys, squirrels, raccoon, doves and waterfowl. Contact: Mark Frank, Wildlife Biologist Assistant, Rt. 2, Box 105, Remington, VA 22734.

G. Richard Thompson Wildlife Management Area—4,160 acres in Fauquier County. Deer, turkeys, rabbits, squirrels and grouse. Contact: Bob Henson, Wildlife Biologist Assistant, 5669 Sumerduck Road, Remington, VA 22734.

Gathright Wildlife Management Area—13,428 acres in Bath County. Deer, turkeys, squirrels and waterfowl. Contact: Kenneth R. Sexton, WMA Supervisor, Rt. 2, Box 648, Hot Springs, VA 24445.

Gatr Tract (managed under Mockhorn)—342 acres seaside in Northampton County. Open to deer hunting only during special archery season Oct. 2-Nov. 13. Closed October 9. Contact: VDGIF, Wildlife Division, 5806 Mooretown Rd., Williamsburg, VA 23188.

Goshen Wildlife Management Area—16,128 acres in Rockbridge County. Bear, deer, turkeys, squirrels and grouse. Contact: H. Eugene Sours, Wildlife Biologist Assistant Senior, 50 Lori Lane, Churchville, VA 24421.

Hardware River Wildlife Management Area—1,034 acres in Fluvanna County. Deer, turkeys, squirrels rabbits, quail, waterfowl and doves. Contact: David Ellinghausen, Wildlife Biologist Assistant, 1320 Belman Road, Fredericksburg, VA 22401.

Havens Wildlife Management Area—7,182 acres in Roanoke County. Bear, deer, turkeys, squirrels and grouse. Foot access only. Contact: Laura P. Long, Wildlife Biologist Assistant, P.O. Box 20456, Roanoke, VA 24018.

Hidden Valley Wildlife Management Area—6,400 acres in Washington County. Bear, deer, turkeys, squirrels and grouse. Contact: Scott Whitcomb, Wildlife Biologist Assistant Supervisor, Rt. 2, Box 569, Saltville, VA 24370.

Highland Wildlife Management Area—14,284 acres in Highland County. Bear, deer, turkeys, squirrels, rabbits and grouse. Contact: Rodger L. Propst, Wildlife Biologist Assistant, HCO3, Box 70, Monterey, VA 24465.

Hog Island Waterfowl Management Area—3,908 acres in Surry County. Bowhunting for deer during special archery early season. Managed firearms hunt for deer in early December by random permit. Managed waterfowl hunting. Fee hunting area. Advance fee reservation required. Information on fees and drawings available from the Game Department after Labor Day. Contact: VDGIF, Wildlife Division, P.O. Box 11104, Richmond, VA 23230-1104.

Horsepen Lake Wildlife Management Area—2,910 acres (18-acre lake) in Buckingham County. Deer, turkeys, squirrels, rabbits, raccoons, doves, quail and waterfowl. A short boat ramp is available for john boats and canoes (gasoline motors not allowed). Contact: Robert L. Turney, Wildlife Biologist Assistant, c/o Hunting Information, HC06, Box 46, Farmville, VA 23901.

James River Wildlife Management Area—1,213 acres in Nelson County. Deer, turkeys, squirrels, raccoons, rabbits, quail, doves and waterfowl. Contact: Joey Robertson, Wildlife Biologist Assistant, Route 1, Box 76-G, Chatham, VA 24531.

Little North Mountain Wildlife Management Area—17,538 acres in Augusta and Rockbridge Counties. Bear, deer, turkeys, squirrels and grouse. Contact: H. Eugene Sours, Wildlife Biologist Assistant Senior, 50 Lori Lane, Churchville, VA 24421.

Mockhorn Island Wildlife Management Area—9,452 acres in Northampton County. Rail and limited waterfowl. Accessible by boat only. Contact: VDGIF, Wildlife Division, 5806 Mooretown Road, Williamsburg, VA 23188.

Pettigrew Wildlife Management Area—934 acres in Caroline County. Deer, turkeys, squirrels, doves and quail. Contact: Robert D. Henson, Wildlife Biologist Assistant, 5669 Sumerduck Road, Reminton, VA 22734.

Powhatan Wildlife Management Area—4,463 acres in Powhatan County. Deer, turkeys, squirrels, rabbits, quail, waterfowl and doves. Contact: David N. Ellinghausen, Wildlife Biologist Assistant, 1320 Belman Road, Fredericksburg, VA 22401.

Ragged Island Wildlife Management Area—1,537 acres in Isle of Wight County. Waterfowl and deer by shotgun and bow and arrow only. Contact: VDGIF, Wildlife Division, 5806 Mooretown Road, Williamsburg, VA 23188.

Rapidan Wildlife Management Area—10,215 acres in Madison and Greene Counties. Bear, deer, turkeys, squirrels, rabbits and grouse. Contact: Robert D. Henson, Wildlife Biologist Assistant, 5669 Sumerduck Road, Remington,VA 22734.

Saxis Wildlife Management Area—6,382 acres in Accomack County. Deer, raccoons and waterfowl. Contact: VDGIF, Wildlife Division, 5806 Mooretown Road, Williamsburg, VA 23188.

Stewart's Creek Wildlife Management Area—1,100 acres in Carroll County. Grouse and turkeys. For information, write: c/o Joe Williams, Fisheries Biologist, 2206 S. Main Street, Blacksburg, VA 24060.

Turkeycock Mountain Wildlife Management Area—2,679 acres in Franklin County. Deer, turkeys, squirrela, and raccoon. Contact: Mark Frank, Wildlife Biologist Assistant, Route 2, Box 185, Bassett, VA 24055.

White Oak Mountain Wildlife Management Area—2,712 acres in Pittsylvania County. Deer, turkeys, squirrels, rabbits, quail and doves. Contact: Joey B. Robertson Jr., WMA Supervisor, Route 1, Box 76-G, Chatham, VA 24531.

Waterfowl Blind Drawing On Management Areas

A public drawing for waterfowl blinds will be held for Barbours Hill and Hog Island Wildlife Management Areas. For information on these hunts, contact VDGIF, 4010 W. Broad St., Richmond, VA 23230-1104, after Labor Day.

National Forests

The George Washington and Jefferson National Forests provide the largest amount of land open to the general public for hunting in Virginia. Most of the 1.7 million acres of the National Forests is open to public hunting and camping unless specifically designated closed. An annual $3 stamp is required to hunt or fish on the National Forest. The stamp can be purchased at most outlets that sell hunting licenses. Hunting regulations, seasons and bag limits conform with state and county regulations. Information can be obtained from:

George Washington National Forest Headquarters, Harrison Plaza, 101 North Main Street, Harrisonburg, VA 22801, phone (703) 564-8300. Ranger District Offices in Bridgewater, Buena Vista, Covington, Edinburg, Hot Springs and Staunton. New updated sportsman's maps are available for a fee at the headquarters or the six ranger district offices.

Jefferson National Forest Headquarters, Federal Building, 210 Franklin Road, SW Roanoke, VA 24001, phone (703) 982-6270. Ranger District Offices in Blacksburg, Wise, Natural Bridge Station, Marion, New Castle and Wytheville.

Cooperative Public Hunting Areas

The Virginia Department of Game and Inland Fisheries is responsible for wildlife management on some 250,000 acres of land it does not own, in return for hunting privileges and benefits to sportsmen.

Piedmont State Forests

The following State Forests are owned and managed by the Virginia Department of Forestry for public use: **Appomattox-Buckingham State Forest**—19,705 acres south of Route 24 in Appomattox and Buckingham Counties. **Cumberland State Forest**—16,779 acres in western Cumberland County north of U.S. 60. **Pocahontas State Forest**—5,873 acres south of Richmond in Chesterfield County. (The portion of this area which adjoins the State Park and selected buffer zones adjacent to State Forest boundaries are closed to hunting.) **Prince Edward-Gallion State Forest**—6,964 acres in eastern Prince Edward County north of Route 360.

In addition to the state or county hunting license, a special *State Forest hunting stamp (permit) is required*. At a cost of $10, this State Forest permit can be purchased from selected issuing agents, many located near the properties. They are also available by mail. To purchase by mail, send a self-addressed, stamped envelope along with the individual's name and state hunting license number to the Cumberland State Forest Office or the Appomattox-Buckingham State Forest Office (addresses below).

Seasons and bag limits generally coincide with those of the county/counties in which each State Forest is located. However, there are some differences which need to be recognized. Consult the Hunting Laws Summary produced by the Department of Game and Inland Fisheries for specific exceptions.

Special safety zones are established on each State Forest to protect residences, offices and working facilities. These are adequately "signed." Included State Parks are also protected. All such areas, in addition to all physical facilities and improvements are shown on State Forest maps which are available from each State Forest office. For additional information, State Forest maps, hunting permits, and other

Wild turkey, photo by Lloyd B. Hill.

Lloyd B. Hill

details, write to: Cumberland State Forest, Route 1, Box 250, Cumberland, VA 23040. Telephone: (804) 492-4121 or Appomattox-Buckingham State Forest, Route 3, Box 133, Dillwyn, VA 23936. Telephone: (804) 983-2175.

Military Areas

Marine Corps Base, MCCDC Quantico. 50,000 acres in Fauquier, Prince William and Stafford Counties. A minimum of 15 percent of the available hunting spaces each day are reserved for off-post civilian hunters. All must purchase the annual base hunting permit after attending a mandatory hunting orientation/safety lecture which is given at the base game checking station. Lectures are given from October l-January 31 and during spring gobbler season. For information concerning cost of permits and times of lectures, call (703) 640-5523. Daily hunting quotas vary depending upon military commitments. Shotgun slugs are required for deer hunting. Deer may not be hunted with dogs or by driving. Certain areas allow muzzleloaders.

Fort A.P. Hill Military Reservation. 76,000 acres in Caroline County. The permit fees are variable. Permits are valid for one year (July 1-June 30). Hunting provided on a first-come, first-served daily basis. Shotgun and bow and arrow only. Dogs may not be used to hunt deer. Dove hunting on Wednesdays and Saturdays only during the regular dove season. Maps and regulations available. Write to: USAG Fort A.P. Hill, ATTN: Wildlife Section, Bowling Green, VA 22427. Enclose a self-addressed, stamped envelope. Phone (804) 633-8477/8300.

Radford Army Ammunition Plant. 2,800 acres in Pulaski County. Deer is the only legal game that can be hunted. Hunters are selected from Game Department applications received by September 1, 1994. Applications are available beginning July 1st of each year. Hunters between the ages of 12-18 must be accompanied by a licensed hunting adult. All other appropriate licenses are required (big game, archery, state license). The first three days of the hunt, October 22, 29 and November 3 will be for archery; the last three days, November 24, 26, and December 3, for shotgun. For an application and complete set of rules, write: Virginia Department of Game and Inland Fisheries, c/o RAAP Deer Hunt, P.O. Box 11104, Richmond VA 23230-1104. For specific questions, call Department offices in Blacksburg, (703) 951-7923; Marion,(703) 783-4860 or Richmond, (804) 367-1000.

Gray squirrel; photo by Bill Lea.

Fort Pickett Military Reservation. 45,198 acres in Brunswick, Dinwiddie and Nottoway Counties. Hunting normally permitted Monday through Saturday except Christmas Day. Daily hunting quotas are based on troop training activities. Geographical areas on Fort Pickett may be closed at any time due to military training missions on the installation. Quail hunting on Mondays, Wednesdays, and Saturdays only. Dogs may be used to hunt both big and small game with some areas off-limits to hunting deer with dogs. Dove hunting is permitted on Wednesdays and Saturdays (afternoons only). Hunters must wear blaze orange (minimum of 500 square inches above the waist) during the deer firearms season. In addition to a state hunting license, a Fort Pickett permit is required. The permit fee is $12.00 plus a $5.00 outdoor activity fee. Hunting information and map may be obtained by sending a self-addressed, stamped envelope to: HQ, U.S. Army Garrison, Attn: Game Check Station, Fort Pickett, Blackstone, VA 23824. For additional information/inquiries, phone (804)292-2618.

U.S. Army Corps of Engineers

- 5,900 acres in Franklin, Henry, and Patrick counties surrounding Philpott Lake. No permit required. Map available from Resource Manager, Route 6, Box 140, Bassett, VA 24055.
- 38,000 acres in Charlotte, Halifax and Mecklenburg Counties surrounding John H. Kerr Reservoir. No special permit required. Nineteen developed wildlife management areas. Map and management area guide available from Reservoir Manager, Route 1, Box 76, Boydton VA 23917.
- 7,523 acres in Dickenson County surrounding John W. Flannagan Dam and Reservoir. No permit required. For additional information, contact Resource Manager, Route 1, Box 268, Haysi, VA 24256-9736, (703) 835-9544.

• 88 acres in Wise County surrounding North Fork of Pound River Lake. No special permit required. For additional information, contact: Project Supervisor, Route 1, Box 369, Pound, VA 24279-9369, (703) 796-5775.

State Parks

When traveling through state park areas not designated for hunting, guns **must** be unloaded and cased. For general information about hunting at Virginia state parks, call (804) 786-1712.

Fairy Stone State Park—2,400 acres in Patrick and Henry Counties only. No permit required. Remainder of park closed to hunting, but open for other park activities. Maps available. Write: Route 2, Box 723, Stuart, VA 24171.

Sailor's Creek Battlefield State Park—220 acres in Amelia and Prince Edward Counties. Special designated areas of hunting are marked. No permit required. No maps. For information, write: Route 2, Box 70, Greenbay, VA 23942.

Grayson-Highland State Park—950 acres in Grayson County. No permit required. Maps available. Write: Route 2, Box 141, Mouth of Wilson, VA 24363. Phone: (804) 786-1712.

False Cape State Park—4,321 acres in Virginia Beach. Limited waterfowl hunting by permit November-January. Limited deer and feral hog hunting October 1-8 only. Contact: VDGIF, Wildlife Division, P.O. Box 11104, Richmond, VA 23230-1104.

Occoneechee State Park—2,100 acres in Mecklenburg County on Buggs Island Lake. No permit required. Maps available. Write: Rt. 2, Box 3, Clarksville, VA 23927. Phone: (804) 786-1712.

Mason Neck State Park—1,050 acres in Fairfax County. Management deer hunt controlled by lottery. Application must be received by end of August. Write: 7301 High Pont Road, Lorton, VA 22079, or phone (703) 550-0960.

While not designated for hunting, there will be camping available through December 5, 1994 at Bear Creek Lake State Park which is adjacent to Cumberland State Forest.

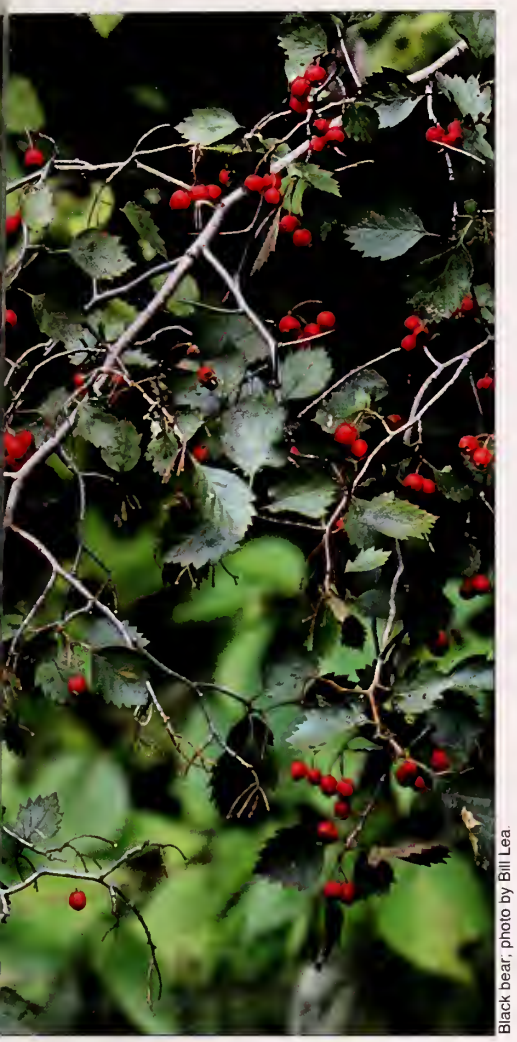
Industrial Lands

Appalachian Power Cooperative Management Areas—4,800 acres surrounding Smith Mountain Lake in Bedford and Pittsylvania Counties. No permit required. No maps available. For information, contact Department of Game and Inland Fisheries, Route 1, Box 76-G, Chatham, VA 24531, (804) 432-1377.

Westvaco Cooperative Management Area— 900 acres in Amherst County. No permit required. Maps are not available. Write: Westvaco Timberland Division, P.O. Box 577, Rupert, WV 25984. Phone (804) 352-7132.

Corporate Timberlands

Many corporate timber companies open their lands to public hunting. They require an annual permit, however, and the fees vary. Before purchasing a permit, be sure to check with the company on the specifics of the lands they have available to public hunting, since



Black bear, photo by Bill Lea

many reserve large tracts for lease to hunt clubs. A state hunting license is required in addition to any timber company hunting permit.

Bear Island Timberlands

Approximately 70,000 acres are available for permit hunting throughout central piedmont Virginia. Permits are valid on any company properties *except* land which is posted with "No Hunting" or "Hunting Privileges Leased" signs. Permits may be obtained by **mail only.** Cost of permits is $15 each, and $10 for disabled or senior citizens with *proof of disability or age required.* Individual county maps are available at $1 per map. **Note**: Maps are subject to change each year. For a list of counties with tracts available for permit hunting, write to Bear Island Timberlands Co, L.P., Hunting Permits, P.O. Box 2119, Ashland, VA 23005. Permits are valid from September 1, 1994 through May 31, 1995.

Chesapeake Forest Products Company

Public hunting permits are sold at the three Woodlands Regional Offices listed below by mail and at the regional offices at Keysville and Pocomoke during normal business hours. Chesapeake hunting permits at the Eastern Virginia Regional Office (formerly West Point Region) will be processed only by mail. Applications have been placed in many sporting goods stores, or may be requested by mail. All mail requests must be accompanied by a self-addressed, stamped envelope. Permits are $20. Maps are available at a cost of $1 per county. Permits will not be issued to persons under the age of seven. Permits are valid for hunting only on all lands posted with Chesapeake white metal posted signs. Some restrictions may apply on certain tracts. The Woodlands Regional Offices are:

Eastern Virginia Region—approximately 25,000 acres located in Charles City, Essex, Gloucester, James City, King and Queen, King William, Lancaster, Mathews, Middlesex and New Kent Counties. Contact: Chesapeake Forest Products Company, Hunting Permits, 15th and Main Streets, West Point, VA 23181. Phone: (804) 843-5298.

Pocomoke Region—approximately 15,000 acres located in Accomack (VA), Wicomico, Worcester, and Somerset (MD). Contact: Chesapeake Forest Products Company, Hunting Permits, Box 300, Pocomoke City, MD 21851. Phone: (301) 957-1521.

Keysville Region—Approximately 12,000 acres located in Charlotte, Halifax, Lunenburg and Prince Edward Counties. Contact: Chesapeake Forest Products Company, Hunting Permits, Box 450, Keysville, VA 23947. Phone: (804) 736-8505.

The Glatfelter Pulp Wood Company

About 25,000 acres are available for hunting. Most acreage is leased for exclusive use and so posted; all other unposted properties open to permit holders. Counties with one or more tracts open for hunting include: Buckingham, Culpeper, Fluvanna, Louisa, and Spotsylvania Counties. Permits are available by mail only after completing an application. All applications must be completed and mailed to Thomas N. Reeder, Jr., District Manager, P.O. Box 868, Fredericksburg, VA 22404. All applications must be accompanied by a stamped, self-addressed envelope and a check or money order for $15 for each permit. Maps ($2 per set) are available only when purchasing a permit.

Lester Properties

20,000 acres are leased to area sportsman's clubs on tracts located in the counties of Franklin, Halifax, Henry and Pittsylvania. Contact: Kenneth O. Scruggs, Forestland Department Manager, Post Office Drawer 4991, Martinsville, VA 24115. Phone (703) 656-3250.

Westvaco

More than 150,000 acres are open to hunting in 20 counties, including Albemarle, Amherst, Appomattox, Bedford, Botetourt, Buckingham, Campbell, Halifax, Nelson, Pittsylvania and Rockbridge. Some tracts leased exclusively to hunt clubs. Cost of a combination hunting/fishing permit is $15. Permits available by mail, with request accompanied by self-addressed, stamped envelope. Write to: Timberlands Division, P.O. Box 577, Rupert, WV 25984. No maps are available. Permits are also sold during normal business hours at the Westvaco Timberlands Office in Appomattox, and at selected local merchants including Sports Unlimited, Appomattox.

Sporting Clays Courses of Virginia

A: Cumberland State Forest Sporting Clays
Route 1, Box 250
Cumberland, VA 23040
804/492-9526

B: Cavalier Rifle & Pistol
9 Chase Gayton Drive, Apt. 1124
Richmond, VA 23233
804/740-5263

C: Charles City Clays
501 Shirley Plantation Road
Charles City, VA 23030
804/829-6270

D: Eastern Shore Safaris
P.O. Box 37
Jamesville, VA 23398
804/442-6035

E: Old Forge Outdoors
7945 Long Reach Road
Providence Forge, VA 23140
804/966-2955

F: Sussex Shooting Sports
2005 Wakefield Avenue
Petersburg, VA 23805
804/834-3200

G:Buffalo Creek Sporting Club
Rt. 1, Box 232
Lynch Station, VA 24571
703/297-6626

H: Bull Run Shooting Center
7700 Bull Run Drive
Centreville, VA 22020
703/830-2344

I: Flying Rabbit Co.
P.O. Box 1234
Harrisonburg, VA 22801
703/432-3969

J: Primland Hunting Reserve
Rt. 1, Box 100
Meadows of Dan, VA 24120
703/251-8012

K: Quail Ridge Sporting Clays
Rt. 3, Box 116-A
Lexington, VA 24450
703/463-1800

L: Homestead Shooting Grounds
P.O. Box 2000
Hot Springs, VA 24445
703/839-7787

M: Thompson Valley S.C
P.O. Box 4285
Richlands, VA 24641
703/988-7907

N: Shady Grove S.C.
11986 Lucky Hill Road
Remington, VA 22734
703/439-2683, FAX
703/439-9427

O: Forest Green S.P.
9925 Waller Road, P.O. 361
Spotsylvania, VA 22553
703/582-2566

P: Virginia-Carolina Shooting Sports, Inc.
Rt. 4, Box 379
Ridgeway, VA. 24148
703/ 956-4778

Sporting clays is a hunter's dream when the season is over or the shooting skills are in need a bit of improvement. Shooters walk a multi-station course, challenged with clay targets thrown to imitate flying ducks, running rabbits, flushing quail, or any number of other quarry. Listed left are the established sporting clays ranges in Virginia. Some require membership, others operate on a daily fee basis. Call first for information, reservations and directions.

Additional Sporting Opportunities

Access for Disabled Hunters

The George Washington and Jefferson National Forests offer special access for disabled hunters. Interested individuals should contact district offices for specific information about what is available and guidelines:

GEORGE WASHINGTON: Deerfield Ranger District, phone (703) 885-8028; Dry River Ranger District, phone (703) 828-2591; James River Ranger District, phone (703) 962-2214; Lee Ranger District, phone (703) 984-4101; Pedlar Ranger District, phone (703) 261-6105; Warm Springs Ranger District, phone (703) 839-2521.

JEFFERSON: New Castle District, phone (703) 864-5195 and the National Recreation Area, phone (703) 783-5196.

Hunters are qualified if they have a valid totally and permanently disabled resident special lifetime license, or a totally and permanently disabled veteran resident lifetime li-

cense—and a state Permit for Persons Permanently Unable to Hunt on Foot. This permit allows disabled hunters to shoot from a stationary vehicle. Permittees may have one non-disabled helper ride in the vehicle with them. This assistant may hunt, but he/she must shoot from outside the vehicle.

Special Deer Hunt for Disabled Hunters

The Virginia Department of Forestry will hold its 3rd deer hunt for physically disabled persons at the New Kent Forestry Center during the 1994 deer season. Hunt days have been scheduled for the 1994 hunting season on November 26, and December 3, 10, 17, 26, 27, 28, 29 30. *Please note: November 26 has been reserved for a group from McGuire VA Hospital.*

In order to participate in this year's hunt, hunters must have a physical disability which significantly limits their mobility while hunting. The hunter may bring an assistant, who will also be allowed to hunt. Both hunters must possess a valid Virginia hunting license and big game stamp. The daily limit will be two deer of either sex. Biological data will be collected from every deer in order to plan future herd management. The stands are easily accessible by vehicle, and many consist of a ramp and platform for wheelchair accessibility.

To apply for participation, hunters must submit the following: 1) a 3" x 5" index card with name, address, social security number, phone number, age, assistant's name, and first three choices of dates; 2) disability verification; and 3) preference for a natural stand or a stand with a platform and ramp to: New Kent Forestry Center, 11301 Pocahontas Trail, Providence Forge, VA 23140 (or call 804/966-2201 for more information). This information must be received by October 7, 1994. To receive confirmation, applicants must enclose a self-addressed, stamped envelope. Dates will be assigned by random drawing.

Eastern Shore Deer Hunt

The Eastern Shore National Wildlife Refuge in Cape Charles will hold a white-tailed deer management hunt. The season will run the following dates: Archery: Oct. 31-Nov. 19; Gun: Nov. 23, 25, 26, 30, Dec. 3, 7, 10, 14, 17, 21. A special bonus hunt will be held on Jan. 6 & 7 if harvest does not reach the harvest goals. Hunt will be by permit only. Archery permits will be issued on a first-come, first-served basis. Gun permits will be issued by a computerized lottery. For more information, write 5003 Hallette Circle, Cape Charles, VA 23310, or call (804) 331-2760.

White-tailed buck; photo by Bill Lea.

Rifle Sighting-In Ranges

The *Department of Game and Inland Fisheries* has a public sighting-in range available for rifles and shotguns with slugs on the *Amelia Wildlife Management Area*. Built with safety and accuracy in mind, the range is a 7-station, benchrest-only facility, with 50 and 100-yd. target points (25-yd. target points are to be installed this fall). A shotgun range for hand-thrown clays, along with an archery range are also available free of charge. You may sight in any caliber rifle on the range, including blackpowder rifles, along with shotguns with slugs. No pistols are allowed. Be sure to bring your own paper targets, cardboard backing, clothespins and tape. The range is open seven days a week from sunrise to sunset, except Mondays when the range is closed until 12 noon for maintenance. No reservations are required.

The *George Washington National Forest* has three rifle ranges open to the public in VA. Generally, the ranges are open from sunrise to sunset every day for firing rifles, pistols, and shotguns at stationary targets. Moving targets are prohibited. There is no fee for use of the range, but you may have to wait your turn. For more information about the ranges and their locations, contact the Headquarters at Harrison Plaza, 101 N. Main Street, Harrisonburg, VA 22801, phone (703) 564-8300.

Shooting Preserves

The Virginia Department of Game and Inland Fisheries (VDGIF) authorizes the operation of shooting preserves throughout the Commonwealth. For information on shooting preserves in your area, contact: Wildlife Division, VDGIF, 4010 W. Broad Street, Richmond, VA 23230-1104, phone: 804/367-0904.

Resources

Maps

A good map is essential for a successful hunting experience. Topographic maps are available from the following sources: **Virginia Reproduction and Supply Company**, 9 W. Cary St., Richmond, VA 23220, (804) 643-9116; **Virginia Division of Mineral Resources**, Box 3667, Charlottesville, VA 22903, (804) 293-5121; **Geographics of Virginia, Inc.**, P.O.

Box 988, Bluefield,VA Industrial Park, Bluefield, VA 24605, (703) 322-4623 (they carry maps for most of western and southwestern Virginia); **U.S. Geological Survey**, Branch of Distribution, Box 25286, DFC, Denver, CO 80255 (use this address if you know the particular map you want); and **U.S. Geological Survey**, National Cartographic Information Center (NCIC), 507 National Center, Reston, VA 22902, (703) 860-6045 (use this address to request an index of the state maps available to find the particular map you are looking for). Contact each firm individually for procedures and fee information.

Virginia Wildlife Crime Line

Eight years ago, the Virginia Department of Game and Inland Fisheries established a fish and wildlife and boating violation reporting program. A toll-free number (1-800-237-5712) is available 24 hours a day, 7 days a week including holidays, to report game, fish or boating violations. The Virginia Wildlife Crime Line is staffed 8 a.m.—5 p.m. daily. An answering system will record call-back requests after hours.

A reward fund has been established by *The Virginia Sportsmen Reward Fund, Inc.*, and is offered for information leading to an arrest. Callers may remain anonymous and are not required to testify in court.

1994-95 Hunting Outlook

Deer

by W. Matt Knox
Deer Program Supervisor

Statewide Deer, Bear, a

	1991-1992			1992-1993			1993-1994		
County	Deer	Bear	Turkey	Deer	Bear	Turkey	Deer	Bear	Turkey
Accomack	1195	0	0	1134	0	0	1534	0	0
Albemarle	3537	49	147	4315	23	234	4177	47	124
Alleghany	2230	60	135	2519	29	243	2219	62	167
Amelia	2477	0	204	2899	0	173	2734	0	154
Amherst	2332	20	158	2603	10	179	2470	32	138
Appomattox	912	0	97	1248	0	144	1507	1	119
Augusta	3825	73	153	4235	37	228	3262	44	183
Bath	4801	34	236	4926	14	331	3744	48	237
Bedford	6273	11	416	6826	8	371	5753	15	498
Bland	2907	5	200	2940	7	170	2641	18	224
Botetourt	4670	46	274	5206	23	490	4503	47	351
Brunswick	2008	0	128	2589	0	97	2872	0	157
Buchanan	27	0	0	6	0	0	25	0	1
Buckingham	2726	0	208	3388	0	277	2731	0	211
Campbell	1091	0	166	1279	0	150	1287	0	153
Caroline	2129	0	236	2790	0	168	3158	0	156
Carroll	1421	0	270	1468	0	223	1263	0	187
Charles City	1238	0	37	1308	0	29	1546	0	48
Charlotte	1717	0	140	2100	0	147	2011	0	161
Chesapeake	594	4	0	777	7	0	1065	0	0
Chesterfield	1194	0	37	1613	0	40	1821	0	37
Clarke	1597	0	17	1537	0	22	1853	0	5
Craig	2980	27	113	3477	11	214	2561	33	221
Culpeper	1438	1	81	1650	1	78	2303	2	67
Cumberland	2412	0	203	2955	0	210	2797	0	177
Dickenson	387	0	61	254	0	114	256	0	74
Dinwiddie	1570	0	188	1799	0	165	2014	0	206
Essex	924	0	81	1070	0	110	1310	1	139
Fairfax	599	0	2	608	0	4	722	0	3
Fauquier	3550	0	69	3930	0	60	4555	1	48
Floyd	1629	0	208	1946	0	190	1857	0	251
Fluvanna	2009	0	164	2577	0	189	2135	0	145
Franklin	2756	0	256	2977	0	253	3429	0	343
Frederick	3778	0	142	3643	0	115	3660	0	150
Giles	2929	19	383	3122	5	259	2601	23	284
Gloucester	528	0	26	570	0	16	772	0	41
Goochland	1463	0	129	2174	0	151	2890	0	165
Grayson	3638	0	261	4461	0	214	3770	0	255
Greene	390	22	18	418	15	17	527	22	19
Greensville	1282	0	18	1432	0	7	1746	0	17
Halifax	2001	0	360	2249	0	323	2344	0	301
Hanover	690	0	125	1005	0	85	1347	0	138
Henrico	721	0	19	927	0	18	1086	0	24
Henry	1527	0	42	1570	0	44	1911	0	65
Highland	4190	18	243	4698	20	307	3123	43	188
Isle of Wight	2196	0	11	2229	1	12	2284	0	18
James City	722	0	16	925	0	9	1228	1	7
King and Queen	1308	0	238	1457	0	165	1591	0	214
King George	1398	0	35	1576	0	19	1735	0	30

Virginia deer hunters harvested 201,122 deer during the 1993-94 season. This total included 116,500 bucks, 82,720 does, and 1,902 deer of unrecorded sex. This represented a less than 1% increase from the 200,466 deer checked in 1992-93. In spite of the small increase, percent females in the harvest increased from 39.6% to 41.5%.

Statewide, archers and muzzleloaders accounted for 15,900 and 25,995 deer or 7.9% and 12.9% of the total harvest, respectively. Public lands resulted in 20,074 deer checked (10%) and private lands 179,693 (89.3%).

Over the past 5 years, the total statewide deer harvest and percent of females in the harvest have increased dramatically in response to rapid liberalization of deer seasons, bag limits, and number of either-sex hunting days. However, the statewide deer harvest is not directly correlated with the statewide deer population level. For example, the 75% increase in harvest from 114,562 in 1988 to 201,122 in 1993 does not represent a 75% increase in the

nd Fall Turkey Harvest

County	1991-1992 Deer	1991-1992 Bear	1991-1992 Turkey	1992-1993 Deer	1992-1993 Bear	1992-1993 Turkey	1993-1994 Deer	1993-1994 Bear	1993-1994 Turkey
King William	1915	0	237	1929	0	172	2053	0	149
Lancaster	573	0	4	737	0	11	740	0	30
Lee	802	0	124	896	0	171	1320	0	89
Loudoun	5771	0	41	6093	0	31	6389	0	51
Louisa	1484	0	166	1665	0	208	1583	2	162
Lunenburg	1437	0	73	1727	0	93	1757	0	73
Madison	890	37	41	1013	32	42	1294	43	37
Mathews	171	0	0	141	0	0	195	0	1
Mecklenburg	1230	0	65	1647	0	69	1583	0	79
Middlesex	291	0	19	292	0	15	474	0	28
Montgomery	1654	2	149	2078	7	191	1763	3	214
Nelson	1229	41	100	2015	10	182	1914	45	106
New Kent	1401	0	29	1561	0	35	1877	0	37
Newport News, Hampton	176	0	0	161	0	1	187	0	0
Northampton	787	0	0	880	0	0	1260	0	0
Northumberland	730	0	8	827	0	18	836	0	42
Nottoway	1528	0	82	1732	0	91	1628	0	103
Orange	1133	0	60	1340	0	72	1712	0	87
Page	1211	30	33	1291	50	49	958	31	59
Patrick	1553	0	58	2043	0	120	2082	0	96
Pittsylvania	4715	0	293	4965	0	323	4439	0	341
Powhatan	2194	0	90	2554	0	101	2540	0	67
Prince Edward	2109	0	168	2529	0	177	2040	1	163
Prince George	1664	0	69	1833	0	62	2141	0	58
Prince William	1139	0	27	1014	0	37	1304	0	31
Pulaski	1516	3	121	1589	2	122	1534	0	149
Rappahannock	1505	18	52	1778	31	45	1811	37	52
Richmond	874	0	27	880	0	33	895	0	48
Roanoke	602	3	66	747	3	78	565	10	55
Rockbridge	3410	25	173	3948	10	270	3292	31	200
Rockingham	4048	64	105	3625	63	159	3082	73	158
Russell	383	1	32	653	4	81	933	0	91
Scott	1343	0	210	1343	0	242	2093	0	217
Shenandoah	4195	18	157	3640	31	191	3232	31	227
Smyth	2407	5	178	1867	2	107	1482	2	186
Southampton	4820	0	0	5550	0	2	5965	0	4
Spotsylvania	583	0	66	771	0	64	1624	0	119
Stafford	879	0	41	1090	0	94	1110	0	94
Suffolk	1549	3	0	1449	2	0	1850	2	4
Surry	1974	0	33	2106	0	39	2572	0	58
Sussex	2382	0	70	2884	0	66	3106	0	62
Tazewell	1046	5	114	1436	7	133	1843	7	144
Virginia Beach	703	0	0	675	0	0	849	0	0
Warren	1888	13	19	1971	17	28	1923	20	19
Washington	813	0	90	967	0	90	1216	3	93
Westmoreland	980	0	14	1157	0	35	1294	0	40
Wise	328	0	74	380	0	78	615	0	67
Wythe	2495	0	175	2841	1	158	2588	0	83
York	679	0	10	731	0	10	807	0	16
Totals	179,105	657	10,514	200,446	483	11,460	201,122	781	11,190

statewide deer population.

The increase in harvest over the past several years was a direct result of liberalized harvest regulations designed to increase the antlerless deer harvest levels as a means to stabilize and/or reduce the deer herd over much of Virginia.

This lower population goal has and will continue to be met with opposition by some deer hunters. Regrettably, there is still a segment of our deer hunting constituency that equates an overabundance of deer with good deer management and has come to expect a record deer harvest annually. The first opinion is, thankfully, a very narrow viewpoint of what deer hunting is about, and the second is theoretically and realistically impossible.

As all deer hunters are aware, the Virginia Department of Game and Inland Fisheries Board of Directors made several changes in the deer regulations for the past 1993-94 deer season that will carry through to the 1994-95 season. One of the most notable was the addition of a week to the statewide early muzzleloading season. Previously a buck-only season, the early muzzleloading season was made full season either-sex east of the Blue Ridge Mountains. Additionally, a change in the hunting license deer tagging system benefitted muzzleloading hunters by establishing a standard statewide bag limit for all deer hunters (archers, muzzleloaders, and general firearms) of two deer per day, three per license year, one of which must be antlerless. As a result of these changes, muzzleloading deer harvests increased 115%, from 12,115 (6% of total) in 1992-93 to 25,995 (12.9% of total) in 1993-94. In just the past two seasons, the early muzzleloading season has yielded three Boone and Crockett bucks!

Depending on the weather, hunter participation, and the mast crop, the 1994-95 deer season should provide another good season. Deer numbers should be stable to slightly reduced over most areas. Statewide deer herd condition should be fair to good.

Black Bear

by Dennis Martin
Bear/Furbearer Project Leader

Virginia's black bear harvest increased during the 1993 hunting season, one of 10 increases in the last 13 years. The harvest increased from 488 in 1992 to 789 in 1993, with the increase being reflected fairly evenly throughout the counties that permit bear hunting. Once again Rockingham County led the state with 72 bears harvested, followed by Alleghany (60) and Augusta (53). The portion of females in the harvest decreased from 37.7% to 35.1% for the third consecutive year.

The harvest increase has been explained with biological facts and speculation. The 1993 mast production increased substantially over the 1992 mast production survey results, which was the second lowest recorded since this data collection began in 1973. It is believed that bears tend to hibernate earlier during mast failures when high-quality, high-energy foods are unavailable.

The influence of the gypsy moth on bear populations is not clearly understood. Virginia Tech and the Shenandoah National Park, in cooperation with VDGIF, have been conducting research to fill in the gaps in our knowledge of this situation. Early figures indicate that some movement patterns have been observed, but black bear reproduction apparently has been unaffected, at least in the short term. The long-term effects continue to be a concern and could likely decrease the carrying capacity of some habitats, and some home ranges of specific bears may be altered. Very high moth production has been observed recently in Bath, Alleghany, Highland, Augusta, Rockbridge, and Rockingham Counties.

Since a 1988 legislative act permitted regulation changes in 9 southwest counties, 215 bears have been relocated into portions of those counties closed to bear hunting. A black bear relocation study was initiated in 1990, and has concluded that some of the relocated bears, mostly adult males, moved considerable distances after release, while many remained in or near the release habitats. Highway deaths were high, primarily on interstates, and some illegal mortalities were recorded. One bear captured as the result of an agriculture complaint was transported more than 100 miles, only to be killed during the hunting season two years later in a county near the original capture site. Movements of the radio-collared bears since the monitoring began has proved to be valuable information. Many of the bears have selected home ranges in close proximity to their release location, while others have traveled considerable distances. Nuisance bear complaints were extremely low in the study area during and following the study. The bolstering of the southwest bear population using captured bears appears to be successful. Bear sightings in and around the study area continue to increase.

An ambitious 5-8 year black bear research project has been designed to provide an accurate population estimate and a system of annual monitoring these populations and the factors influencing this great animal. Beginning on the GWNF and VDGIF properties, more than 50 bears will be trapped and many fitted with radio collars. This work and related nutritional, genetic, disease and other related studies should benefit all those who appreciate and admire this predator, and are responsible for its health and survival.

The 1994 bear harvest will be greatly influenced by both the weather and mast production. Early reports from field personnel indicate that Virginia may experience good to excellent oak and other hard mast production this fall. Excellent soft mast production of dogwood and wild grape promise to provide attractive food sources later this summer and fall.

The influence of weather is both difficult to predict and exasperates interpretation of harvest data. The hunter primarily interested in deer is also a principal factor in determining future bear harvest. The big-game license offers the deer hunter the opportunity of harvesting Virginia's premier trophy during the second week of the rifle season. Poor weather can cause extreme fluctuations in the bear harvest during this season because it is only a week long. This class of hunter usually accounts for about 1/3 of the total harvest. Both the bowhunter and the bear hound hunter have much longer seasons, therefore weather is much less likely to have as dramatic an effect. The hound hunter usually accounts for 1/2 the kill, while the archer takes about 1/6, although in recent years, as archery hunting has become more popular and bear populations have increased, the proportion of bow-killed bears has been as much as 37%.

It is now required that the sex organs remain attached to harvested bears to allow accurate identification at the check station of the gender of each animal. The sex ratio is very important when evaluating population changes. Special check stations have been chosen and equipped, and each bear is checked only at these special stations. A small tooth, located just behind the large canine teeth in the upper jaw is required to be submitted to the check station as part of the checking process so that biologists can accurately age the animal. The hunter, although sometimes inconvenienced by having to transport his or her trophy to one of these bear check stations, has been exceptionally cooperative, and the quality of harvest the data has substantially improved.

Wild turkey; photo by Bill Lea.

Upland Game Birds Forecast

by Gary Norman, Forest Game Bird Project Leader

Wild Turkey

Through our recent research, we have learned that mast crops play a vital role in the ecology of the wild turkey in Virginia. For the past five years, VDGIF has captured and followed about 100 wild turkey hens per year, 430 total, with the use of radio-telemetry equipment. While the analysis of this work is currently ongoing, our preliminary findings have suggested some interesting relationships between annual mast availability and the birds' movements and survival.

While wild turkeys are quite opportunistic when it comes to food, the availability of oak mast crops appears to have a most significant influence on turkeys. Acorns seem to be preferred foods and turkeys readily consume them when available. When acorns are not available, turkeys feed on a variety of other foods, including soft mast crops (dogwood, grape, gum, cherry), grasses and insects. In our Virginia forests, which are predominately oak-hickory, oak-pine or pine, acorn production, or the lack thereof, plays a critical role in the daily movements and behavior of wild turkeys. When acorns are plentiful, turkeys are able to meet their energy requirements by feeding on these relatively large foods with little time or effort required. Conversely, when acorn crops fail, turkeys most often search for other foods which are generally smaller in size and dispersed in the forest, thus requiring more effort and travel.

With the aid of small radio-telemetry equipment, we have been able to remotely follow the movements of wild turkey hens to document effects of these foods on their home ranges and survival. In the most dramatic instances, some hens have moved more than 25 air-miles when the acorn crop failed. More typically, turkeys expand or move their ranges when mast crops fail to include larger areas with clearings and pastures where alternate foods may be found. Department staff working to track radio-equipped birds are challenged to keep up the birds when acorns are scarce. In other years when acorns are abundant, their job to locate a radioed hen may be fairly predictable and routine.

Thus the effect of acorn availability on the distribution, movements, and behavior of wild turkeys appears significant. Our results have shown very different harvest and survival rates of turkeys between years, depending on the mast availability. Turkeys are seen more frequently in or near fields when mast crops fail and are apparently more vulnerable to predation, poaching, and legal harvest. Their vulnerability to predation may be related to behavior differences where they are moving in unfamiliar habitats and searching for foods when no or few acorns are available. Harvest rates (the percent of radioed birds legally harvested) have ranged from figures less than 10% when acorns are abundant, to figures over 20% when mast crops fail. Researchers in other states have recommended that fall hunting seasons limit the harvest to no more than 10% of the population. Setting the season to accommodate mast failures is important, as turkeys are just more likely to be seen and harvested when foods are scarce.

Good numbers of turkeys are expected this fall. The two primary ingredients to consider when estimating this fall's turkey population are the breeding population and reproductive success. The breeding population is best estimated by the spring gobbler kill. This past year's record state spring gobbler kill of 8,981 birds suggests that our breeding population was very good. Regionally, record high harvest totals were recorded in the north mountain and

north piedmont regions. Many counties inked record harvest totals and a select few made the debut list for what I call the "High Five Turkey Awards," for performance in population growth and density. This list includes Buchanan, Northumberland, Shenandoah, Frederick and Lancaster Counties. These counties registered impressive increases in population estimates and population densities. Westmoreland County has the highest population density index, however, and retains its undisputed title as Virginia's "Wild Turkey Capital."

The second element of this year's forecast, reproductive success, is equally encouraging. Normally about 1 of 3 hens is successful at hatching her clutch of usually about 11 eggs. Mother Nature is kind in some years, but on average, only half of the young turkeys will survive their first 4 weeks after hatching. Evidence of good reproduction this year comes from our research work and from observations from Department and cooperator field employees. Radioed hens we have been tracking in our research project had above average nesting success and poult survival was average. Most of our radioed hens were observed with other hens and their broods and were sometimes sighted in impressive numbers. Other encouraging observations of turkey brood sightings have been reported by staff across the state. Mild, dry weather in late May and early June, our peak hatch times, may have contributed to this year's success.

Ironically, though turkeys may be more abundant this year, they may also be harder to find. Mast conditions in many areas of the state appear good at this time for both soft and hard mast production. These conditions will give even more of an advantage to the turkeys and leave hunters with the challenge to find them in the woods and not in clearings or in fields.

In summary, recent trends in turkey numbers suggest that county level population are stable or increasing, and reproduction in 1994 appears to be above average. Populations of wild turkeys should be very good, but a good mast crop will make seeing and hunting turkeys this fall a challenge.

Bobwhite; photo by Lloyd B. Hill.

Dwight Dyke

Ruffed Grouse

In estimating the status of ruffed grouse, VDGIF has historically relied on reports by cooperating hunters to provide information on hunting success. Last year, about 60 avid grouse hunters provided information from their hunts, as well as wing and feather samples, so that the age and sex of harvested birds could be determined. The average flushing rate for the 1993 season was 1.09 grouse per hour. This average is very near the long-term average of 1.16 grouse per hour. Last year's rate, as well as recent years' data, indicate a stable trend in our grouse population at levels slightly below long-term averages.

Grouse reproduction this year appears very good. We have had encouraging reports from our western mountain ranges where many broods and good numbers of grouse poults have been observed. Mild and dry weather conditions, favorable for most ground-nesting birds, prevailed in much of the nesting and brood-rearing season.

The advance of the gypsy moth in much of the grouse range should be mentioned for its positive effect on grouse populations. The defoliation and timber losses in some northwest areas of Virginia will probably create or improve grouse habitat in these areas. Some of these gypsy moth influences can be found on the Lee Ranger District in the George Washington National Forest.

The Department initiated a new survey this spring to count male grouse drumming along a 10-mile randomly selected route. While it will take several years to establish baseline data, readers should be aware that the Department recognized the need for the survey and took the necessary action to establish a program to scientifically monitor grouse populations. Avid grouse hunters are encouraged to join in the ongoing survey of hunting success by contacting Gary Norman at VDGIF, P.O. Box 996, Verona, VA 24482-0996.

American Woodcock

While the news about the status of wild turkeys and ruffed grouse in Virginia is very positive, the news about the American woodcock is troubling. For many years the plight of the woodcock has been one of concern as population monitoring indices have shown declines at a rate of about 2% per year. In 1985, the U.S. Fish and Wildlife Service acted to reduce the effect of hunting on the declining population by reducing the season length and bag limit. While hunting has not been the suspected cause of the decline, federal biologists felt that hunting should be commensurate with the population status. Because the woodcock is a migratory game bird, it falls under

the jurisdiction of the federal government with the passage of the Migratory Bird Treaty Act of 1918.

This past spring saw a dramatic 17.6% decline in the woodcock breeding population in the Eastern Management Unit. Recruitment or reproductive success of this year's breeding population will be important to maintain population levels. The future for the woodcock is best described as uncertain.

The primary cause most often cited for continuing decline in woodcock numbers is the loss of habitat. While both state and federal agencies share the concern for the status of the woodcock, the U.S. Fish and Wildlife Service recently indicated that they will be considering measures next year to again bring the harvest to levels commensurate with the population status. While these measures are only for discussion currently, expect some restrictions in the coming years unless something very positive happens with the woodcock population indices.

Small Game Hunting Forecast

By Mike Fies
Small Game Program Leader

Bobwhite Quail

Quail hunters throughout most of Virginia experienced another poor season during 1993-94. Statewide, the number of quail bagged per hunter hour averaged 0.32, down 16% from the mediocre season of 1992-93. The average number of coveys flushed per hour also declined substantially, down 14% from a year ago. Declines were particularly severe in the east piedmont (-32%) and west piedmont (-27%) areas of the state. Surprisingly, hunter success was slightly improved in the tidewater region. A severe drought last summer (one of the hottest and driest of this century) almost certainly resulted in poor nesting success and fewer juvenile quail recruited into the population. Also, it is likely that an abundance of acorns resulted in a higher percentage of quail frequenting habitats that are not normally hunted, making coveys seem scarcer than they really were.

Fortunately, quail populations can recover quickly when nesting conditions are suitable. This year, rainfall was adequate from April through mid-May and early nesters should have been reasonably successful. Drought conditions during June and early July, however, may have hampered nest attempts in some regions of the state. If rainfall is scarce during the late summer months, another meager harvest may be in store for Virginia quail hunters. Conversely, a liberal amount of rain during late July and August could translate into a respectable hatch and an ample number of fall covey rises.

Regardless of hatch success, the highest populations of bobwhites will be found in the tidewater and east piedmont regions of the state. Quail hunters in the west piedmont and northern regions should flush a moderate number of birds, but coveys will be localized and comparatively difficult to locate. The worst hunter success will occur in the central mountain and southwest regions of the state, where quail populations are scattered and very sparse. In general, quail hunters should see a modest increase in bobwhite numbers in regions where late summer rainfall was adequate for normal reproductive success.

Rabbits

Rabbit hunters and their loyal beagle companions should find plenty of cottontails to chase during the 1994-95 season. Despite ever-increasing pressure from land-use changes and more efficient farming, Virginia's rabbit population has managed to increase steadily since about 1988. A series of mild winters and early springs are most likely responsible for the observed increase in cottontail numbers. A lack of snowfall during the past several years prolonged the usefulness of weedy areas for escape cover and provided year-round access to nutritious green food plants. As a result, winter carryover has been high and a multitude of breeding rabbits has taken full advantage of the lush nesting conditions created by abundant spring rains. All of this translates to more rabbits in Virginia's briar patches.

Even during years when cottontails are plentiful, experienced hunters know that "rabbits are where you find them." Populations

Rabbit; photo by Lloyd B. Hill.

are usually localized in pockets of suitable habitat. When choosing an area to hunt, look for large tracts of thick brush interspersed with grassy shooting lanes. Throughout most of Virginia, private farms and corporate timber lands offer the best opportunities. Early in the season, some excellent rabbit hunting can also be found on certain public areas. A willingness to donate some blood in the briar thickets is often necessary to roust rabbits from their hiding locations. A pack of well-trained beagles can make this job a lot easier and will almost certainly result in a heavier game pouch at the end of the day.

According to survey counts made by almost 1100 rural mail carriers, the southwest mountain region has the highest cottontail density in the state. In 1993, the number of rabbits observed per 100 miles of mail route was 1.57 in this region, compared to 1.39 in the central mountains, 1.30 in northern Virginia, 0.87 in the western piedmont, 0.91 in the tidewater region, and 0.70 in the eastern piedmont. Although survey data for 1994 are not yet available, preliminary observations seem encouraging. So get yourself and your beagles in shape. The 1994-95 season promises to be one filled with action!

Squirrels

Squirrel hunting prospects for the 1994-95 season look considerably more promising than they did a year ago. Last year's abundant acorn crop has enabled squirrels to begin recovering from the low numbers caused by food shortages during the previous year. A generous supply of grapes and other berries also helped squirrels supplement their winter fat reserves. Adult squirrels entered the breeding season in prime condition and should have produced a bumper crop of young squirrels this past spring. Many of the older adults probably had a second litter during late summer. An abundance of young squirrels entering the fall population should translate to more meat for your Brunswick stew.

Early reports suggest that we may have another good acorn crop this year. When you grab your .22 or favorite scattergun, head for a stand of large oaks with plenty of acorns scattered on the forest floor. During the early season, hunters who locate areas where hickory nuts are available will be particularly successful.

Last year, squirrel populations were highest in the northern and eastern regions of the state. Squirrel hunters in the western piedmont and mountainous regions of the state will have to scout harder for a good place to hunt, but populations should be much improved over last year. Sportsmen aspiring to harvest a fox squirrel should try hunting in Augusta, Bath, Bland, Highland, Rockingham, Russell, Smyth, or Tazewell Counties where this species is most numerous. Moderate fox squirrel populations can also be found in Rockbridge, Shenandoah, Washington, and Wythe counties. Regardless of which species of squirrel you prefer to hunt, populations should be plenty sufficient to keep your heart pounding on a crisp October morning.

Mourning Doves

by Patty Moore
Farm Habitat Program Leader

Weather is always a critical element in both the timing of grain harvest and the timing of the fall mourning dove migration. These factors play a role in the numbers of doves available opening day and thoughout the season. However, the eastern mourning dove population status will also determine the number of overall doves.

U.S. Fish and Wildlife Service biologists report that the 1994 mourning dove population in the eastern management unit, which includes all states east of the Mississippi River and Louisiana, is stable with last year's. Analyses indicated no significant trends in numbers of doves in the unit for the last 10 years or the 29-year period between 1966-1994. However, Virginia showed a downward population trend over the 29-year period.

Dove hunters in Virginia can expect good dove hunting during the 1994-95 season. Most corn was planted on time this year and not delayed by spring rains. Therefore, a normal corn harvest beginning in mid-to-late August can be expected. However, if the drought continues like last summer, some corn will be salvaged early for ensilage and grain corn may be late. Regardless, there should be plenty of doves shifting around.

There will be 3 segments during the 1994-95 dove season. Dove season will open at noon on the Saturday before Labor Day, September 3. Hunting hours are from 12:00 noon until sunset each day during the first segment which runs through September 30. The second segment runs October 1-29 and the final segment runs December 26 through January 7. Hunting is permitted from one-half hour before sunrise until sunset each day during the second and third segments. The bag limit is 12 doves per day, 24 in possession. This season structure attempts to take advantage of locally producing and migrating mourning dove populations as well as provide opportunities for hunters in all geographic locations of the state.

Waterfowl Forecast

by Gary Costanzo
Waterfowl Research Biologist

Duck Production Forecast: Habitat conditions in the prairie pothole region this year look good and may be the best they have been in the past 10 years. Snow and rainfall amounts were up, as well as the May pond count. Nesting cover also appeared to be better than in the past couple years. Duck production is therefore expected to be better than last year. However, because of the drought over the last decade or so, it will probably take several years of good conditions before prairie duck numbers will recover from the lows of the 1980s and early 1990s.

In the Northeast, duck production appears to be average to good. The nesting season was delayed about a week because of cool weather, but spring water conditions were good. Dry conditions in late spring

and early summer reduced brood rearing habitats and limited renesting efforts. In Virginia, wood duck nest box checks showed good numbers of nesting hens and average to good production. However, the number of local breeding black ducks was down this year and local black duck production will be lower than last year.

Federal hunting season frameworks will probably remain the same as last year on most duck species in Virginia and the Atlantic Flyway.

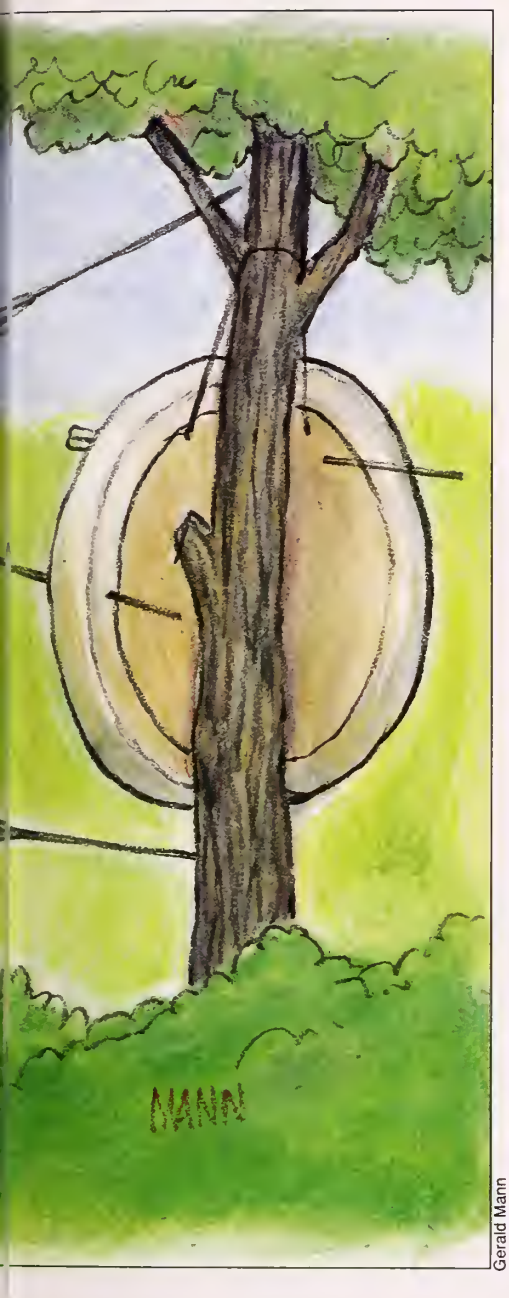
Resident Geese: Production of local breeding (resident) Canada geese was average this year, down slightly from last year's abundant hatch. Resident goose populations continue to increase in Virginia and other Atlantic Flyway states. Virginia will again offer a special early season for resident Canada geese in September. The hunting zone will be expanded this year to include a greater area of the northern and central part of the state. The season will provide additional waterfowl hunting opportunities, and may help reduce some of the "nuisance" goose complaints in certain areas. To participate in the season, hunters will be required to obtain a validation card from the VDGIF. This card will include a hunt log which must be returned to the VDGIF to obtain harvest and hunter participation information.

Migrant Geese and Swans: Snow geese, brant, and tundra swans appear to be having a good to average production year. Ice-out on the tundra breeding grounds was slightly later than last year but spring weather conditions were good. These populations are stable or increasing and although no changes are expected there could be a slight increase in seasons or bag limits for some of these species this year. Migrant Canada geese, on the other hand, have not yet recovered from the 7-8 years of poor production and population decline. Although hunting restrictions had been instituted during this period to reduce the goose harvest and allow the population to recover, further restrictions are being considered in the Chesapeake Bay region for this year.

Bill Lea

A Stick and a String

by Steve Ausband



Gerald Mann

I have heard that my own experience with archery is becoming more and more common these days. I started shooting a bow back when recurves were high-tech and only old-timers shot longbows. So I wanted a recurve, and eventually I got a pretty good one. I shot targets with it—sporadically—and I took it out hunting from time to time, with pretty slim results. Then I discovered compounds.

Compounds were wonderful. They still are. The first day I picked up a compound, I shot it about as well as I shot my old recurve. Three days later, I was shooting groups I would never have dreamed of with the stick bow, and things just kept getting better. The compound was accurate, easy to shoot, and so fast that my arrows dropped much less than they did from the old recurve. I put on a better set of sight pins, carefully selected my arrows and heads, practiced a bit more, and went hunting. And I started taking deer.

Not a lot of deer, you understand, but enough to keep me real interested in becoming a better bowhunter. I experimented with different sight combinations, various broadhead designs, different arrow weights, and subtle variations in shooting position. I found what worked for me, and I was pretty confident, once I had located my ambush spot and set up my stand, that I had a good chance of bringing home some tenderloin. I kept reaching for more, though, as all of us do. Should I try a mechanical release? Carbon arrows? How about one of those red-dot scope sights? The archery world was getting more and more gadgety, and the possibilities seemed almost endless.

I reached for something *less* instead: the longbow—a nearly six-foot-long stick with a string on it and swatch of leather wrapped around the handle. The basic plan has not changed since the Stone Age, and the exact design of the bow I wanted dates back at least as far as the medieval period. I got out my catalogs, balanced my checkbook, and ordered the bow. I remember the day it came.

Everybody who comes into the Milton Post Office knows just about everybody else, and the lady behind the counter knows us all, so when my six-foot cardboard tube arrived, she ventured a polite guess as to what it was.

"Looks like somebody's got a new fishing pole," she said, as she handed it to me in exchange for the little yellow card saying, "Call at window for package."

"Looks like it," I replied.

It still looked sort of like a fishing pole when I took it out of the package. It *was* a straight stick with a piece of string attached, and it was no heavier than some of my surf rods. It was a stick—a handsome stick, mind you, with laminations of hardwood and glass, a fine finish, and a simple and elegant leather-wrapped handle. I strung the stick and shot a few arrows.

It was a disaster. I couldn't keep arrows on the target at 20 yards. The bow seemed to weigh only a little more than some arrows; it had no stabilizer, no pulleys, no cables, and no sights. *No sights?* The recommended way to shoot the thing was to lean slightly into it, cant the bow at a comfortable angle, violate every rule of good target stance, and let 'er fly. It was pure instinct: the Obi-Wan Kenobi school of archery, "Go with the Force, Steve Skywalker." I couldn't make it work.

At the end of the first day I had lost two arrows. I was frustrated and angry. I had been shooting at 20 yards all day, a distance from which I can hit an orange consistently, using my compound. With the longbow, I was missing a 24-inch target with every fourth shot. Four weeks later I was still discouraged. I already had venison in the freezer; the compound bow had taken care of that. But I wanted to master the new toy. It was slow going.

Mastering the longbow is a challenge... to say the least!

"At the Battle of Agincourt, in 1415," my wife said, "the English longbowmen picked off French knights at more than 80 yards." She reads historical novels, a minor vice which had never threatened our marriage until now.

"C'est impossible, n'est-ce pas?" I said.

"What?"

"That's French. It's what you and I would be speaking today if I had been on the English side at Agincourt."

More practice. The 55-pound draw seemed gradually lighter, and my fingers no longer burned and blistered after a long shooting session. My groups began to get tighter, with fewer and fewer wild shots. Actually, the first few attempts didn't produce anything you could call groups. They were more like small communities. Groups came later, in the second month.

One interesting side effect of shooting the longbow was vastly improved accuracy with the compound. After I learned how to maintain a steady hold and follow-through on a bow weighing only a hair more than 16 ounces, holding the compound steady after the shot seemed ridiculously easy.

By the end of the second month, I was shooting well enough to try hunting with the new bow. Archery season was about over, but I sometimes hunt with a bow during gun season anyway, and I took the longbow along on a couple of November outings. I managed to miss a nice buck, one I might also have missed with the compound, but I enjoyed being out with nothing but a stick and a string. I learned a lot, and next year I intend to open the season with the longbow. For starters, here's what I found out:

1) First of all, the longbow is very quiet. I bought wooden arrows (how long has it been since you've smelled a box of new cedar arrows?), with feather fletching, of course, and they make a whisper as they pass over the shelf of the bow. By contrast, the compound, even with string silencers, sounds like dropping a stack of dishes and silverware in the woods.

2) It's slow, though. Most of us are used to reading ads claiming 220, 230, or 240 f.p.s. speeds from the new compounds. Some are supposed to be even higher. If you can find a longbow that will throw a hunting-weight arrow much over 160 f.p.s., you've found a fast one. That's not necessarily bad; it just takes some getting used to.

3) For me—and, I think, for most archers—the longbow is a very short-range tool. Twenty yards is a fine distance. At 15 to 20 yards, an archer with pretty good instinctive shooting skills can harvest a deer cleanly and efficiently. Again, that may be more of a psychological disadvantage than a real one. I can hit reliably with a compound at considerably greater range, but most of the deer I have taken with any bow have been at 20 yards or less.

Lee Walker

4) Deliberately canting a bow and leaning into the shot seems strange, but that's the way the longbow "wants" to be shot. Since you're looking down the arrow, directly at the target, rather than at a set of sights affixed to the bow, canting doesn't really seem to change the point of impact.

5) It's fun to shoot. Compounds are fun too, of course, but this is different. A compound bow is a fairly complex mechanism. A longbow is a stick and a string. It is also a part of your arms and body in a way the compound never quite is, and you find yourself leaning into the shot, watching the arrow's flight after the release, and practically thinking it into the target. Obi-Wan was right.

6) This thing takes constant practice, and lots of it. You can lay off a while with the compound, practice for a few days, and start shooting almost respectable groups again. But if you miss shooting the longbow for a week or two, you've got a lot of practicing to do. It is a much more demanding tool.

7) The most interesting way to practice, and in some ways the most practical, is "stump shooting." You walk through the woods, pick a target at some reasonable range, and try to hit it. You are constantly having to guess the range and shoot through holes in brush, and that makes for excellent hunting practice. Actually, since stumps are hard on arrows, especially wooden arrows, I shoot clumps of moss, distinctively colored leaves, and other soft targets. When the range is unknown, the accuracy difference between the compound with sights and the longbow tends to diminish.

Lee Walker

Stepping back in time to the 15th century and picking up a longbow is a challenge that requires more than a little bit of persistence, patience, and practice. With no cables, no wheels, and no sights, a longbow becomes a primitive challenge to the mind, body, and soul in a simple stick of wood.

8) Don't over-practice in one session. Twenty-minute sessions, six days a week, are a lot more productive than a two-hour session on Sunday afternoon. This is particularly true in the first few weeks, when your arms and hands are getting used to the new bow. As you tire,

you tend to start practicing mistakes. I found it most efficient to shoot no more than two or three arrows (rather than six or 12), retrieve them, and then shoot again.

I haven't given up on the compound. I like mine very much and intend to hunt with it every year. I also bought a new, 60-pound recurve, put a single sight pin on it, and learned that it could be just about as accurate as the compound. I'll hunt with it too. But there is something special about the wand-like feel of the longbow and its wooden arrows, something basic and maybe a little bit nostalgic. The bow is an extension of your body; *you* are doing the shooting. Like a good shotgun, it feels like a part of your own arms. It is demanding, slow, and limited in range, but for a shooter willing to accept those limitations and wait for the perfect shot, it is an efficient and beautiful instrument. The reason it didn't change for all those centuries is because it didn't need to. □

Lee Walker

Lee Walker

Longbows are very quiet. Using wooden arrows with feather fletching, they make a whisper as they pass over the shelf of the bow. Deleiberately canting a bow and leaning into a shot may seem strange, but that's the way the bow "wants" to be shot.

Some of the big archery companies, such as Bear and Martin, are now seeing increased sales of traditional longbows and recurves. For those interested in looking at other, more specialized outlets, listed below are the names and addresses of a few manufacturers who make and sell only modern versions of traditional bows. Write to them for more information.

Algonna Archery, 4121st Ave E., P.O. Box 129, Assininiboia, Saskatchewan, Canada SOH OBO. "Distributor and manufacturer of Canadian traditional archery supplies and products." Popular items include the "Packbow," a shorter longbow offered in a variety of hardwood and glass combinations. Prices run around $275 at the current time.

Black Widow Custom Bows, Inc., P.O. Box 160, Highlandville, MO 65669. The emphasis here is on beautiful and highly functional recurve bows, but they also provide a very nice longbow. They are pricey items (around $630 for the longbow), but they have a very good reputation for smoothness, accuracy, and speed.

Great Plains Traditional Bow Co., 314 W. Foster, Pampa, Texas 79065. These folks make longbows, recurves, and take-down models in several different lengths and designs. Basic longbows and one-piece recurves run around $350.

Jerry Hill Archery Co., 231 McGowan Rd, Wilsonville, Alabama 35186. Bowyer Jerry Hill offers a wide variety of bows, both recurves and longbows, with prices starting at around $200. The very popular Wildcat II is a long bow (68 inches) that sells for about $225.

Monarch Longbow Co., Inc., P.O. Box 5406, Missoula, MT 59806. Monarch offers very attractive, hand-crafted bows made from a variety of woods. All handles are wrapped with elk leather. Prices run from approximately $400-$500.

Stotler Archer, 500 Wilson Rd., Mosier, Oregon 97040. Stotler offers custom-made bows and arrows. The

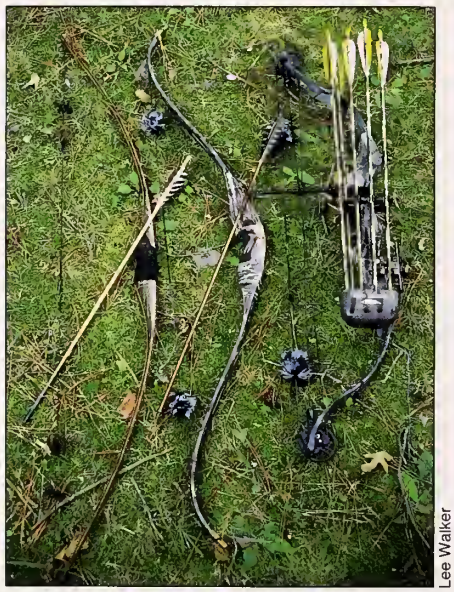
Stotler "Gamebuster" longbow runs around $350.

Wilderness Bows, 1015 Central Pit Lane, Nampa, Idaho 83687. This company offers maple and glass-laminated bows, along with accessories such as quivers, handmade cedar arrows, and back quivers.

Types of Bows: Definitions

The Compound Bow

This is the most modern bow type, and the one with which most hunting archers are familiar. Look in any sporting goods store or outdoor catalog that sells archery equipment, and you'll find compound bows. They may, in fact, be the only ones you will find; that's how popular they have become.



Lee Walker

Left to right: longbow, recurve bow, and compound bow .

Compounds use a system of wheels or eccentric cams and cables attached to the bowstring in such a way as to make the bow's draw weight at its greatest length less than its weight at the beginning of the draw—and after the arrow is released. If an archer shoots a 60-pound compound with a 50% let-off, only the first few inches of the draw demand that he or she pull 60 pounds. About halfway back, the bow "turns over," and the archer can hold and aim a bow that seems to pull only 30 pounds. Then, when the arrow is released and the string gets about half way back down again, the bow is once more a 60 pounder, throwing a very fast, hard-hitting arrow. The advantages in ease of holding, aiming, and releasing smoothly are obvious. Since the 1970s, compounds have largely dominated the archery market.

Lloyd B. Hill

A compound bow is an efficient hunting tool and easy to master, but a recurve and a longbow are the ultimate archery challenge for the hunter.

The Recurve Bow

The recurve became popular in the 1950s, and the success of great bowhunters and bow makers (or bowyers) like Fred Bear and Ben Pearson helped create the demand for modern recurves which lasted through the 1960s and into the early 70s. The limbs of a recurve are wide and flat, and they sweep away from the archer when the bow is strung. Both recurves and longbows are more difficult to master than compound bows. Most experts believe that the recurve is a bit easier to learn to shoot than the longbow, and it also tends to be a little bit faster with the same weight arrow.

The Longbow

Longbows look just like the bows you see in Robin Hood movies. They are based on a medieval design that reached a peak of fame, popularity, and effectiveness in England. Modern hunting longbows tend to be not quite as long as the 15th century English variety (which was often as long as the archer was tall), and they are usually made of wood and man-made laminates rather than the traditional yew, but otherwise they have changed little in the last 600 years. Unstrung, longbows are virtually straight, slender sticks, with limbs that are much less flattened than those of the typical recurve or compound. The most famous modern expert with a longbow was the late Howard Hill, who hunted large and small game, as well as birds, all over the world with his hand-crafted bows and arrows. Of the three types, the longbow is the simplest and oldest in design, the lightest, and the most difficult to learn to shoot accurately.

Steve Ausband is the chairman of the English Department of Averett College in Danville, and an avid hunter.

What Does Hunting Mean to Me?

The following letter was sent to us by an ardent hunter who tried to put down on paper why he hunts. We thought our readers would appreciate his words as much as we did.

When the arrow fell from its rest and hit the bow with a clank, it jolted me back from my hazy daydream. It was tough to concentrate on the task at hand, but with the sunrise warming me and the crisp early morning October air, the fog lazily drifting up leaving behind one of the most beautiful views of the Meadow Creek Valley, and the constant stir of numerous birds, squirrels, and chipmunks, it was truly difficult to remember the real reason I was here. I wondered how many non-hunters had been able to enjoy such a morning.

Some commotion coming from my left caught my attention. It was a couple of gray squirrels sounding their disapproval of something coming up the ridge. Was this the moment I was waiting for? Suddenly, a large fox squirrel rambled into view. Twice the size of the grays with a reddish-gray coat and a tail over a foot long, he slowly made his way up the ridge looking for breakfast. All the while, the grays noisily made it known this was their ridge.

From the right, the woods literally exploded with action. A gang of eight young turkeys were coming through on their early morning march from their roosting area to the stream below for the first drink of the day. As I watched them darting, ducking, scratching, and talking to each other, I had to laugh at their comic-like movements. They passed within bow range, but turkeys weren't the reason I was here this morning.

A short time after the turkeys were gone, the woods settled back into its normal routine. I watched a hawk slowly circle, watching the fields below for any movement from a field mouse or rabbit. Again, I wondered how many non-hunters had ever enjoyed such a morning.

Hours passed, but not once did I find myself wishing I was somewhere else. Whether it was watching gray squirrels playing, noticing all the different songbirds, or just taking in the view of miles of valley that spread out in every direction before me, I never tired of just being in the woods...

When I first spotted him coming my way, I knew if he didn't scent me or catch any movement, he would pass within 20 yards of my stand. This, of course, was not by luck or chance. Since mid-July, every free moment of my time was spent in the woods. Scouting, watching, finding, selecting areas, feeding areas, travel corridors; all to insure the best placement of my stand. As he slowly kept coming my way, I could see his antlers glint in the sun. He was a mature eight-point whitetail buck. Still closer he came. When he passed behind a tree at 30 yards, I slowly drew my bow. He kept coming, and at 18 yards he stopped to smell the buck lure I had placed on the ground at this known distance. I started going through the steps in my head. First, find that familiar anchor point, just like the hundreds of practice shots in the backyard; pick a spot to aim at, not the whole deer but a spot, a hair, a ripple in his hide, a color variation, something to aim at. Take a deep breath, hold it, and slowly squeeze the release trigger. All of this seemed second nature because of the many hours of practice, but this time instead of a foam target, I was aiming at a living, breathing animal.

At the squeeze of the release trigger, I saw the bright yellow and white feathers of the arrow slice through the air and sink into the massive buck's chest exactly where I aimed. It was a perfect shot. It was at this moment I realized I just took the life of one of God's most beautiful creatures.

People ask me, "How can you enjoy killing a helpless animal?" Enjoy? I don't enjoy killing. The first feeling I have is sadness for taking the animal's life, then respect. Respect for the animal and what it means to have such animals on our earth. Respect in myself knowing that I do all I can to insure that all creatures will always be here for future generations to enjoy, whether they be hunters or not. Helpless animal? A white-tailed deer is definitely not a helpless animal. With its senses of smell, hearing and sight, it is one of the most cunning animals a hunter can pursue.

I also feel a sense of pride. Pride in knowing I took the knowledge I have about animals, plus the sign I found in preseason, put it together, overcame the deer's senses and put myself in the position to take the deer. I also feel proud knowing that all of the hours of practice allowed me to make a clean killing shot, so that the deer did not suffer. And I also feel pride in knowing that this deer is not going to waste. I take what venison I need or want, and the rest goes to the local Hunters for the Hungry Program which helps feed the homeless and less fortunate.

Sure, I get the antlers mounted and hang them on my wall, but not to say "Yeah, I killed that," but to say because of my understanding of the outdoors, my dedication to the sport, and the will of God, I was able to harvest this big-game animal with a bow and arrow. And for that I am very proud.

Personally, when I lose the sadness, the respect, the pride, the awe of the beauty around me and hunt

just for the kill, it's time to hang up the bows and the guns and walk away, because I'm doing it for all the wrong reasons.

I will allow my children to make their own decisions about hunting, but they will grow up with the knowledge and respect it takes to be in the woods. And I hope that some day they will be wondering how many people have ever been able to enjoy such a morning.—G.P.☐

Lee Walker

Virginia Bear Study Begins on GW

The Virginia Department of Game and Inland Fisheries is in the midst a black bear study on the George Washington National Forest (GWNF). More than 50 bears hopefully will be trapped and many fitted with radio collars to monitor their movements in an effort to learn more about these animals.

Called the Alleghany Bear Study, this project will continue for 5-8 years and give biologists baseline information on reproduction, survival, movement, home range and sex ratio of the black bear population. The information will be used to make management recommendations.

"This is the most ambitious study we have ever attempted," said Dennis Martin, the state game department's black bear specialist, "but it is needed."

Virginia's black bear population is estimated at 3,500 and growing. Nearly 800 bears were checked into game stations during the five-week fall hunting season last year, and many sportsmen take part in the month-long bear hound training season in September.

Western Virginia is a popular area for bear hunting. The latest statistics show 522 black bears were harvested west of the Blue Ridge Mountains in 1993.

"We know the bears are there," Martin said. "That is excellent habitat."

Biologists will trap the bears, tranquilize them, weigh them, affix a tattoo, take blood samples, extract a rear tooth and attach an ear tag. Not all the trapped bears will receive radio collars, but all will receive an ear tag.

The ear tags enable the biologists to keep track of the bear that are found dead or checked in during hunting season.

The radio collars will enable biologists to monitor a bear's range and locate mothers and cubs in dens. This type of monitoring has been conducted for several years in western counties by installing similar but smaller devices on wild turkeys.

"This study represents a strong commitment by the game department staff and board of directors to acquire valuable information about this incredible animal," Martin said. "We welcome questions. Any of our field staff will be willing to provide answers, or you may call my office in Verona at 703-248-9360."

Traps will be monitored daily.

"We are as concerned as anybody about the bear's safety," said Martin, a wildlife biologist for 22 years. "There will be some abrasions, but the methods we are using are standard and minimize injuries to the bear."

To begin the study, bears were trapped in the GWNF from U.S. Highway 250 to U.S. Highway 33, in Augusta and Rockingham counties. As the study continues, it will expand into Shenandoah, Botetourt, Highland, Bath, Rockbridge and Alleghany Counties.

"We are always glad to work cooperatively with the VDGIF on such studies," Forest Supervisor Wayne Kelley said. "The information obtained will help both agencies and others to better care for the land and serve the people."

If a forest visitor comes upon a trapped bear, he or she should leave it alone. The traps will be in locations away from where humans contact is likely.

Martin has enlisted two graduate students from Virginia Tech to assist him along with state game department biologists and wildlife technicians and GW personnel.

The George Washington National Forest and Virginia Department of Game and Inland Fisheries have a 56-year-old cooperative working agreement—the longest in the nation. ☐

New NSSF Directory Lists 1,000 Public Ranges

Whether it's a challenging new sporting clays course or a basic range to sight-in for deer season, finding a place to shoot can be a challenge these days, especially for hunters and shooters who live in urban and suburban areas of the country. That's why the National Shooting Sports Foundation has teamed up with Sturm, Ruger & Co. to publish an updated edition of NSSF's Directory of Public Shooting Ranges, a nationwide listing of shooting facilities open to the public.

"With the upsurge in shooting sports participation over the last few years, this type of information is more important than ever," said Bob Delfay, president of the National Shooting Sports Foundation. "This directory provides a concise, factual reference for the newcomer to shooting as well as for hunters or shooters who have moved to a new area of the country."

This new edition of the national directory lists more than 1,000 ranges, on a state-by-state basis, that are open to the general public or have memberships available. A series of 20 universal symbols illustrate the kinds of shooting facilities available at each club, as well as the presence of special services such as handicapped access and clubhouse facilities. Directions to clubs, contact names and phone numbers are also provided. There is also a section titled "What's New In The Shooting Sports," covering the emerging and exciting new areas of shooting, as well as information on the various shooting sports organizations.

Because this directory profiles public clubs coast-to-coast, it is sure to become a valuable reference guide for traveling shooters, who can now include a trip to the range in their upcoming journeys. A business trip can become a mini-vacation, and a family trip can mean fun for all.

"We hope that this directory will make the shooting sports more accessible to everyone," said Delfay. "It will be updated periodically, so any club not listed that wants to be should contact us."

NSSF's *Directory of Public Shooting Ranges* is available for $2.00 from the National Shooting Sports Foundation, 11 Mile Hill Road, Newtown, CT 06470-2359. Orders of 20 or more directories placed by sportsman's clubs, sporting goods dealers and other organizations are eligible for a reduced price of $1.00 per directory.

4-H Sports-A-Field Day

The VA 4-H Shooting Education Program in cooperation with the Virginia Department of Game and Inland Fisheries will host a State 4-H Sports-A-Field Day on October 21-22, 1994 at the Holiday Lake 4-H Center in Appomattox. Open to youths ages 9-19, their families, and adults interested in working with youngsters in the shooting sports, this event is designed as an introduction to the shooting sports. Events and activities will include instruction in smallbore rifle, shotgun, muzzleloading, air gun, and archery, along with a hunter safety trail, Seneca Run, and a variety of exhibits and demonstrations.

No experience is necessary and a nominal fee will be charged for room and board for the weekend. This is the perfect opportunity to introduce your youngster to the shooting sports in a non-competitive, comfortable atmosphere accompanied by safe and expert instruction.

Mike Clifford

For more information, contact: Dennis Stultz, Extension Office, P.O. Box 540, Kenbridge, VA 23944; phone: 804/676-2497 or Richard Pulliam at the Holiday Lake 4-H Center, Route 2, Box 630, Appomattox, VA 24522; phone: 804/248-5444.

Habitat Restoration for Threatened and Endangered Species

Habitat restoration projects for a variety of threatened and endangered species are being planned along the Nottoway, Meherrin and Roanoke Rivers, according to VDGIF Wildlife Biologist Supervisor, Pat Keyser.

These river basins are home to a number of species of endangered mussels and fish, reports Keyser. The Atlantic pigtoe mussel, dwarf wedge mussel, Carolina darter, Roanoke bass and whitemouth shiner are among the species inhabiting these watersheds.

The planned work involves improving water quality through management practices on private lands involving buffers, native grasses and fencing along streams. Technical assistance and cost-share monies will be made available to private landowners interested in instituting these practices. They will not only benefit the water quality in the watershed, but will also help the timber producer or farmer improve their operations.

Interested landowners should contact Pay Keyser, VDGIF, HC6, Box 46, Farmville, VA 23901, 804/392-9645 for information. ☐

Hunting Symposium Proceedings Available

Proceedings are now available from the second annual Governor's Symposium on North America's Hunting Heritage. The proceedings feature thought-provoking presentations from some of the 250 hunting and conservation group leaders who attended the symposium and include topics such as broadening public understanding of hunting, the history of hunters as conservationists, the concerns of people opposed to hunting, and rebuilding hunting and conservation coalitions.

The proceedings are essential reading and a valuable addition to any outdoorsman's library. As North American Hunting Club Senior Vice President Mark LaBarbea noted, "The proceedings from the first two symposiums are a great starting point, but now it's time for outdoorsmen and the outdoor industry to go on the offensive and publicize the positive aspects of hunting to the non-hunting public. There is so much talent and so many valuable resources among the ranks of hunters; it's time to unite them to spread the good news about hunting."

To help industry leaders, the media and the public better understand North America's hunting heritage, the North American Hunting Club and Wildlife Forever are making available copies of the proceedings. To order, send $5 to cover ship-

ping and handling. Mail to: Wildlife Forever, P.O. Box 3404 Minnetonka, MN 55343, or call 612/936-0605. □

Sport Fishing is Big Business

America's 50 million anglers are responsible for more than $69 billion in economic output, the equivalent of nearly one million jobs, according to a new study by the Sport Fishing Institute (SFI).

Data used in the new SFI economic analysis came from the latest available statistics (1991), the *National Survey of Fishing, Hunting, and Wildlife Associated Recreation*, released in 1993 by the U.S. Census Bureau and the U.S. Fish and Wildlife Service. According to the study, sport fishing activity generated more than $19 billion in personal income, wages and salaries, which represents the equivalent of more than 1.3 million full-time and part-time jobs. Angler expenditures also generate sizable tax revenues for state and federal governments, including more than $1 billion in state sales taxes, $277 million in state income taxes and over $2.1 billion in federal income taxes.

"Many state governments are beginning to recognize the economic payoffs of helping attract more fishermen and increasing good fishing opportunities, according to SFI's Director of Economics, Anthony Fedler, project manager of the new study. "By investing in boat ramps, piers, aquatic habitat, angler education, fish stocking and similar programs, communities are helping their economics by attracting more anglers."

This study proves that sportsmen are much more than folks who enjoy being outdoors; they are an economic engine. Hunting is responsible for over $35 billion in economic activity and more than 400,000 jobs. Therefore, America's sportsmen create more than 1.7 million jobs and in excess of $100 billion in economic activity. In anybody's book, that's a big catch. □

Prairie warbler; photo by Rob Simpson.

- Celebrate the peak of fall migration of birds on Virginia's Eastern Shore
- Delight in watching thousands of birds congregate at Kiptopeke State Park before making their final flight southward to the tropics

Be there...

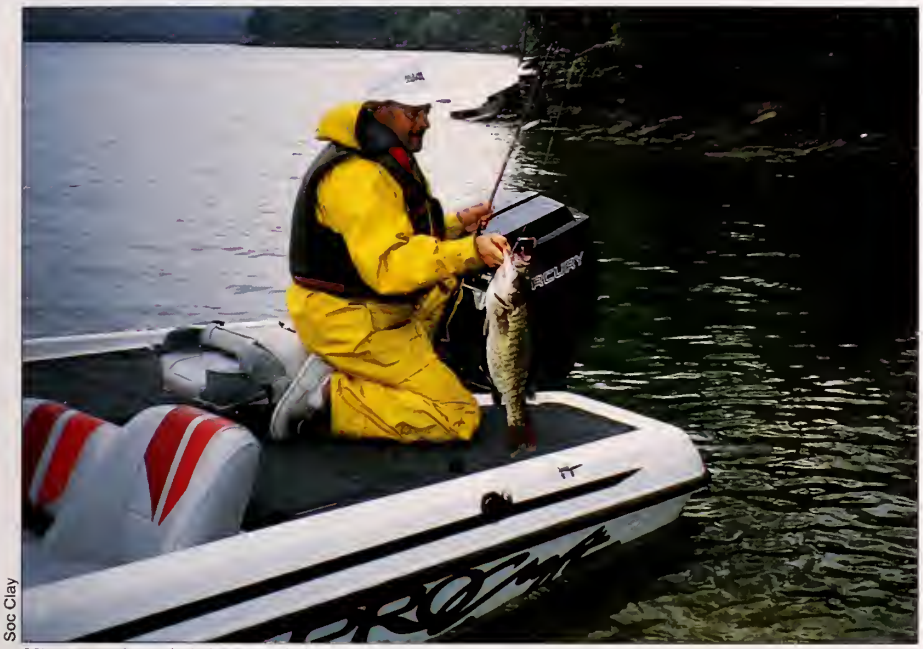
With workshops, exhibits, and guided tours, this celebration of one of Nature's most magnificent mysteries is a must for birders of all ages...

For more information, contact the Eastern Shore of Virginia Chamber of Commerce, P.O. Drawer R, Melfa, VA 23410, phone: 804/787-2460.

Safety

by Col. William Antozzi, Boating Safety Officer

A Look Into The Future



Soc Clay

Virginians love their boats and the recreational activity associated with them. In the last General Assembly, steps were taken to insure that funds will be available in the future to meet boaters' needs for access, education, and safety on Virginia's waters.

Virginia now has 211,000 registered recreational boats and about 100,000 unregistered boats. The total of 311,000 boats leads us to believe, using U.S. Coast Guard estimates, that we have 933,000 boaters in the Commonwealth. Of course, most of them are in the eastern part of Virginia.

A good educated guess is that by the year 2004 there will be about 260,000 registered boats and around 130,000 unregistered, for a grand total of around 390,000 vessels and well over 1,170,000 boaters. Because of the increase in watercraft, at least 100 new water-access sites will be needed.

House Bill 92, which was passed by the General Assembly and signed by the Governor into law, transfers the proceeds of the watercraft sales and use tax to the motorboat and water safety fund (the "Boat Fund"). The change in the destination of funds, which formerly went to the state general fund, will be phased in. For fiscal year 1996, 50% of collections, or an estimated $1,250,000, will go to the Department of Game and Inland Fisheries (VDGIF). By fiscal year 2000, 100% of these funds, or an estimated $2,500,000, will go to VDGIF. The revenue will be spent on boating services. A change in the definition of watercraft, which slightly increases the revenue to the boat fund, was also passed by the 1994 General Assembly.

Public waters are getting more crowded and potentially more hazardous. With the expected growth in boating, public concerns and demands for a safe boating environment will increase.

House Bill 1282, which was passed by the 1994 General Assembly and signed by the Governor into law, lowers from 0.10 percent to 0.08 percent the blood alcohol content for which a person can be found guilty of operating a motorboat under the influence of alcohol. And Mothers Against Drunk Drivers (MADD) donated video cameras to the VDGIF Law Enforcement Division to be used for videotaping suspects in boat operation "under the influence" cases, to aid in prosecuting such cases. Reduction of alcohol use by boat operators increases safety and consequent recreational enjoyment.

A look ahead indicates that there will also be a need for more boating education to keep abreast of the needs of the many new boaters enjoying Virginia's waters. Almost all boating instructors are volunteers who teach courses sponsored by the State of Virginia, the U.S. Coast Guard Auxiliary and the U.S. Power Squadrons. As the vessels proliferate, congestion increases and so does the danger of accidents, injuries, and fatalities.

Courses taught are offered throughout the state and instruction is free. There is a very modest book charge for those courses taught by the Coast Guard Auxiliary and the Power Squadrons. □

Recipes

By Joan Cone

Squirrel– Not A "Tree Rat," It's A Treat!

A few years ago, in England, I was telling someone that instead of complaining about squirrels, they should cook a few. "What, you mean to say that you eat tree rats?" came the astonished reply.

Squirrels, although rodents, are *not* rats. Furthermore, they are both vegetarians and a real menace to any nearby garden. Even more importantly, they are delicious when properly prepared. So, the squirrel is a sporting opportunity and a culinary delight. Both our common gray squirrel and the fox squirrel can provide a real treat for family and friends.

To precook squirrels, place in a deep pot, cover with water and cook at a slow boil until fork tender. Squirrels can be cooked in a pressure cooker by adding 1 cup water and then cooking under 15 pounds of pressure for 20 to 25 minutes. Either way, after cooling, remove meat from bones and use in the following recipe.

MENU

Sumptuous Squirrel Casserole
Quick Ratatouille
Oriental Style Orange Slaw
Kalhua Devil

Sumptuous Squirrel Casserole

3 cups boned, cut-up, cooked squirrel
½ cup milk
½ cup dairy sour cream
1 can (10¾ ounces) condensed cream of chicken soup
¾ cup biscuit baking mix
¼ cup cornmeal
¾ cup milk
1 egg
1 cup shredded Cheddar cheese

Preheat oven to 375°. Heat squirrel, milk, sour cream and soup to boiling. Spoon into a rectangular baking dish, 13 x 9 x 2-inches. Beat remaining ingredients, except cheese, with a wire whisk or hand beater until almost smooth. Pour evenly over hot squirrel mixture. Sprinkle with cheese. Bake, uncovered, until top is set and soup mixture bubbles around edge, 20 to 25 minutes. Makes 6 servings.

Quick Ratatouille

1 small eggplant, peeled and diced
1 cup chopped tomato
1 cup diced carrots
1 cup broccoli florets
1 can (8 ounces) tomato sauce
½ cup chicken broth
⅓ cup fresh squeezed lemon juice
⅛ teaspoon garlic powder
½ teaspoon crushed oregano leaves
½ teaspoon crushed rosemary
Pepper to taste

In a 3-quart saucepan, combine all ingredients. Bring mixture to boiling; reduce heat. Simmer, partially covered, for 25 to 30 minutes or until vegetables are tender. Serve with a slotted spoon. Makes 4 to 6 servings.

Oriental Style Orange Slaw

4 cups mixed shredded red and/or green cabbage
2 navel oranges, peeled, cut into bite-sized pieces
1 can (8 ounces) sliced water chestnuts, drained
1 package (3 ounces) ramen noodle soup mix (any flavor)
Sweet and Sour Dressing

In a bowl, toss together shredded cabbage, oranges and water chestnuts. Reserve broth packet from soup mix for another use. Crumble the noodles into salad. Pour Sweet and Sour Dressing over salad; toss well to coat with dressing. Cover and chill 30 minutes or more before serving to allow flavors to blend. Makes 6 to 8 servings.

Sweet and Sour Dressing:

½ cup rice or cider vinegar
3 tablespoons sugar
2 teaspoons sesame or vegetable oil
⅛ teaspoon pepper
Few drops bottled hot pepper sauce

In a jar with lid combine all ingredients. Cover and shake well until blended. Makes about ¾ cup.

Kahlua Devil

Marcia Coomer of Williamsburg served us this devilishly delicious chocolate cake.

1 package chocolate cake mix
1 box instant chocolate pudding
4 eggs or 1 cup egg substitute
2 cups sour cream
½ cup Kahlua
¾ cup vegetable oil
6 ounces semi-sweet chocolate chips

Preheat oven to 350°. Generously grease a 12-cup Bundt pan. In a large bowl, combine all cake ingredients at low speed until moistened; beat 2 minutes at highest speed. Pour batter into greased pan. Bake for 45 to 60 minutes or until toothpick inserted near center comes out clean. Cool upright in pan 25 minutes; invert onto serving plate. Cool completely. Makes 16 servings. □

Preserving in bronze what we're losing in the wild

An Endangered Species Series by Turner Sculpture

Northern flying squirrel (height: 7 inches) by David Turner.

Continuing to capture the essence of Virginia's endangered species in bronze, David Turner of Turner Sculpture has created the third in his Endangered Species Series to raise funds for Virginia's Nongame and Endangered Species Program.

Turning to the wind-swept beaches and mudflats of his native Eastern Shore, David has chosen to capture the spirit of the delicate, yet spritely piping plover in bronze. Perfectly camouflaged among the speckled beaches, the piping plover can disappear from view in an instant, blending into the landscape with the help of its sand-colored body, black collar, and a black nick of a crown between the eyes.

This federally endangered shorebird is teetering on the brink of extinction, and every year we hold our breath hoping to see signs of recovery. One-quarter of the East Coast piping plover population nests on the beaches of Virginia's barrier islands, struggling to increase its numbers amid the hardships of habitat loss, nest destruction, and predators hungry for a meal of eggs or tiny young.

Like the Northern flying squirrel (featured above) and the sold-out Bewick's wren sculpture, a limited edition of 200 piping plovers will be cast and sold solely to benefit Virginia's Nongame and Endangered Species Program, the program responsible for the management and protection of all the Commonwealth's rare and endangered wildlife. The money raised from the sale of the three sculptures will provide the program with over 1/10th of its present operating budget.

Each sculpture has a purchase price of $325. Turner Sculpture will receive $175 to cover their production costs, while the remaining $150 will be sent to the Virginia Department of Game and Inland Fisheries as your contribution to Virginia's Nongame and Endangered Species Fund. A tax advisor should be consulted regarding the personal tax deductibility of this contribution. Each piece sold will include a certificate of origin and a letter confirming your contribution to the future of Virginia's wildlife.

You may order either the piping plover or the Northern flying squirrel by sending a $325 check for each signed and numbered sculpture to: Turner Sculpture, Box 128, Onley, VA 23418. For credit card orders, call: 804/787-2818.

Note: if you have already purchased a Bewick's wren or Northern flying squirrel and would like the same limited edition number in the piping plover, please send in your order as soon as possible.

Photo of piping plover approximates actual size.

TURNER SCULPTURE

Nongame and Endangered WILDLIFE · PROGRAM
VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES

Masiowski photo

Want to know when the witch hazel blooms or ruffed grouse begin to nest? How about when striped bass run up the Staunton River or hawk migration peaks on the Blue Ridge?

Complemented by breathtaking color photography on every page, the *Virginia Wildlife Calendar* has information about the outdoors that makes sure you'll never be caught indoors again!

On sale now for only $6.50, this year's *Virginia Wildlife Calendar* won't let you forget to put up your bluebird boxes next spring or buy your new fishing or hunting license before the season begins. Order yours today! Remember, this calendar begins in September and runs through next August.

Use the gray page inside this magazine to order, or send your check for $6.50 to: *Virginia Wildlife Calendar*, c/o Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, VA 23230-1104.

Do it today, because supplies are limited!

Make Every Day a Bluebird Day

...with the 1994-1995 Virginia Wildlife Calendar